Monitoring School District Human Resource Cost Pressures

A Report to the Wyoming Joint Education Committee

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"Your Source for Wyoming Labor Market Information"

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Detail Tables

Tables 1 through 5 referenced in this article are available online at http://doe.state.wy.us/LMI/education_costs.htm. Because of the size of these tables, they were not included in this publication but are available online as references.

Introduction

by: Tom Gallagher, Research & Planning Manager

This report represents an initial response to legislative directive to "conduct data collection and analysis necessary for the education resource block grant model monitoring" (General Government Appropriations, Chapter 26, Section 326[d]). Our work was carried out in consultation with the Legislative Service Office and was complemented by access to data available only to state employees working under contract to the Bureau of Labor Statistics (U.S. Department of Labor) and administrative records not publicly available.

The purpose of this report is to present information on teacher and non-teacher cost pressures and to make recommendations on the future monitoring of educational needs. In this report, the term "cost pressures" is interpreted to mean a level of direct compensation that leads to the recruitment and retention of staff capable of producing a superior work product in the public school setting.

This report makes available a great deal of data for 10 teaching specialties and supporting staff for Wyoming, six surrounding states, the nation, and Wyoming's 23 counties across two time periods. While focusing on teachers and major themes, we also provide links to a large body of tabular data, source documents, definitions, and methodologies used in this report at http://doe.state.wy.us/LMI/education_costs.htm.

Building on past reports, this analysis expands on the issue of cost pressures to include the demographics of labor and the structure of supply. Workforce demographics and supply issues are destined to become an increasingly important part of monitoring cost pressures.

The average wage for all primary, secondary, and special education teachers as a group in Wyoming is higher than the national average and the average of all surrounding states, with a range of 1.9% higher than the U.S. to 31.5% higher than South Dakota. The difference between U.S., Colorado, Montana, Nebraska, and Utah wages compared to those of Wyoming's narrowed only slightly over the 2008/09 to 2010/11 period. Idaho's wages compared to those of Wyoming's widened by 5.5% while South Dakota saw no change.

The distribution of teaching occupations in Wyoming is similar in many respects to the distribution in the nation, with elementary school teachers constituting the largest portion (37.9%) and special education teachers making up just 13.4% of the total.

While teacher wages in Wyoming on average may be competitive when compared to the nation and surrounding states, such is not the situation in all counties. On average, across all teacher specialties in the nation, teaching jobs pay 1.9% less than they do on average in Wyoming. However, in Carbon County, for example, the average teaching job pays 6.0% less (a difference greater than the error of the estimates) than Wyoming as a whole, making Carbon County's pay 4.1% less competitive than in the nation as a whole. This report provides examples and access to data permitting calculation of differentials across 10 teacher specialties, the nation, and six surrounding states.

Wyoming's primary, secondary, and special education teachers saw an average annual wage increase from the 2008/09 to

2010/11 of $1,678, or 3.0% (Occupational Employment Statistics). Most counties received an increase in average wage, with the exception of Niobrara and Hot Springs, which decreased 9.4% and 1.8%, respectively.

For the 2010/11 school year, 10.7% of Wyoming's teachers commuted to their place of work from either another county or state, with more than 20% commuting into Big Horn, Crook, Hot Springs, and Niobrara counties. Commuting analysis in Wyoming suggests that distance commuted is related to earnings, and that commuting distance may also be a predictor of retirement.

School districts had to backfill contract *no shows* (employees who agreed to contracts in the spring but did not show up for work in the fall) and over-the-year turnover at a rate for teachers of 7.4% in 2008/09 and 9.7% in 2010/11. The counties with the greatest need to backfill no shows and turnover were Hot Springs (26.1%), Goshen (21.2%), and Albany (17.7%), while Natrona, Uinta, and Laramie experienced the lowest rates.

The largest competitor among school districts in Wyoming is other school districts. For those teachers who left their school districts from 2009/10 to 2010/11, 633 went to work for other school districts in Wyoming. On average, teachers who left their Wyoming school district contract were found to lose wages no matter their industry (public or private) destination.

Slightly more than one in five teachers in the 2011/2012 school year were among the leading edge of the boom generation, and the available evidence suggests that most teachers retire at or before age 65. As the boom generation ages toward retirement, the need for replacement will increase recruitment costs proportionally. Moreover, other occupations requiring an advanced degree – such as pharmacists, librarians, accountants and auditors, and others – are also approaching retirement in relatively large numbers, expanding the need to replace a well-educated workforce across the board. Employers who depend on a staff with advanced degrees will need to expand the size of the market in which they recruit and raise expectations of the supply system to provide the needed workforce.

It is unclear how long local government public finance problems will constrain the hiring of teachers at the national level or to what extent the existing pool of unemployed teachers are losing their skills and marketability. Given the probable exit of the boom generation from Wyoming's teaching workforce, it is important to understand trends in output from institutions of higher education. As briefly outlined in Chapter 5, the number of teaching degrees granted in Wyoming declined slightly in the most recent year for which data is available and stands at about half the level of annual exits from local school districts. Wyoming depends to some degree on importing teachers from other states and seems destined to do so increasingly as the boom generation retires.

As an initial effort, much research remains to be done, not only because of time limitations, but because the first stage of analysis is description. Once a situation is successfully described, the reader is generally interested in an explanation that would lead to effective solutions. Explanation is far more difficult. For individuals who leave working in public education, we can quantify their subsequent earnings and identify the industry in which they work. However, there are many competing reasons for turnover behavior, some of which can readily be explored with available data, and others that can be explored only through the collection of more information.

Methodological Note

by: Tom Gallagher, Research & Planning Manager

The purpose of this report is to present the most current information on teacher and non-teacher cost pressures and to make recommendations on the direction of future market monitoring. There is no single source of information encompassing national, state, and local factors needed to answer the range of demographic, licensing, supply, compensation, and market questions relating to cost pressures at the regional, district, and state level. Consequently, this report draws on several sources of information. While giving the impression of measuring the same thing, sometimes these sources of information measure different components of the same phenomenon and vary in definition, timeliness, accuracy, and transparency. Individually, each measure has its own strengths and weaknesses. Collectively, the measures used in this report can offset weaknesses in other measures, provided they are reasonably well understood.

The most prevalent measure of cost pressures in this report is drawn from the State-Federal Occupational Employment Statistics (OES) program. State Labor Market Information staff in Wyoming and other states survey a sample of employers twice each year under contract to the Bureau of Labor Statistics (USDOL/BLS) to produce annual estimates of occupational staffing patterns and wage rates for jobs worked. The OES program is based on the use of recognized statistical standards, extensive training of state staff, audit of state performance and the use of the Standard Occupational Classification System (SOC, version 2010) and for firms, the North American Industry Classification System (NAICS) throughout the country. The number of jobs worked from the OES program will differ from the number of contract positions for teachers found in administrative databases obtained from the Wyoming Department of Education, and they will differ from the estimate of the number of teachers employed in the state obtained from the Census Bureau's household survey (America's Community Survey). While each data source presents information on the employment of teachers, each differs in source, definition, and unit of measure (job, contract, person employed).

The BLS publishes OES estimates in May which represent wage rates for the preceding May and employment counts from state Unemployment Insurance (UI) accounts for the preceding May and November of the prior year (see Appendix A). The most recent OES estimates produced in this report represent employment in May 2011 and November 2010. This design is intended to approximate the concept of annual average employment at the national level (not all states exhibit the same seasonal employment pattern found in the nation).

OES estimates presented in this report are based on custom aggregations of official, non-published, and confidential BLS estimates. Estimate files were obtained for surrounding states and the nation by permission of the states and the BLS with the assistance of the BLS Dallas Regional Office. The data are only available to certified agents of the BLS subsequent to obtaining permission from each state. The data presented here, and published on R&P's website, were

produced by R&P staff and represent the only instance of the publication of occupational staffing patterns and wage rates for public education in local government at the subnational level. BLS added "local government" to the estimates files for the first time in 2009, limiting their current use for longitudinal analysis of the government sector. (BLS currently publishes local government at the national level only.)

The collection of the OES data is standardized across the states under BLS guidelines. OES data are not appropriate to use as a time series because sample units are not the same over time. Program procedure changes and SOC improvements can also limit comparability over time.

One example of this that impacts the current research is that in the 2008/09 data collection panels shown in Table 4 (posted online), substitute teachers were allocated to the specific occupation for the grade they were substituting for at the time. For example, a substitute teacher working in an elementary school was counted as an elementary school teacher, except special education (25-2021) and a substitute working in a junior high was counted as a middle school teacher, except special and vocational education (25-2022). This data collection practice was changed in the 2009/10 OES panels going forward, and all substitutes were counted as all other teachers, primary, secondary, and adult (25-3999).

The result of this change appears in Table 3 (posted online) as a decrease in the number of primary, secondary, and special education school teachers (25-2000) of 465 and an increase of 2,001 all other teachers, primary, secondary, and adult (25-3999). It also appears as a major difference between the OES data in Chapter 1 and the Department of Employment Contract Files data appearing in Chapter 2. This compatibility issue will no longer be problematic in future comparisons.

The OES mean wage (average) was used for all OES tables discussed in this report after exploring the wage distributions in the OES databases. In most cases, the mean and median wages were relatively close. For example, for all primary, secondary, and special education teachers (SOC 25-2000), the mean wage was $57,805 and the median wage was $57,264. Tables 6 and 7 (available online at http://doe.state.wy.us/LMI/education_costs) show the wage distributions for occupations in the direct instruction (SOC code 25) occupational group by mean, 10th percentile, 25th percentile, 33rd percentile, 50th percentile (also known as the median), 66th percentile, 75th percentile, and 90th percentile.

OES employment estimates represent jobs worked (including multiple job holding) and may be expected to change from year to year at different rates relative to the concept of full-time equivalent (FTE) employees used by the National Center for Education Statistics (NCES, n.d.). The NCES defines FTEs in this way:"the full-time-equivalent (FTE) of staff is calculated by summing the total number of full-time staff from the Employees by Assigned Position … component and adding one-third of the total number of part-time staff." While the rationale behind this particular calculation of FTE is unclear, in contrast to OES data, NCES data are maintained on a longitudinal basis and can be used to describe longer term trends in local government public education.

Methodological Note

Survey estimates of staffing patterns and earnings levels have as their chief disadvantage that the sample is too small for reliable estimates for rural areas. In addition, they lack the information that could assist in understanding and explaining retention and recruitment problems: credentials, demographics, hours worked, tenure with employer, experience in an industry, turnover record, spells of unemployment, earnings level and history, and commuting patterns. All of these variables are either available or can be computed from merged longitudinal administrative databases. Unemployment Insurance (UI) employer accounts, UI wage records (SSN level, quarterly compensation), Wyoming Department of Education (WDE) Fall School District Staff Member Collections (WDE 602; WDE, 2012), and Wyoming Department of Transportation merged databases provide much of the information used in the analysis. While county level analysis shifts from the use of survey data to the analysis of administrative data, making the two not directly comparable, monitoring utilizes the same SOC and NAICS coding systems to characterize industries and occupations.

A complete historic file from the Professional Teaching Standards Board arrived too late to inform the present analysis as fully as we anticipate in future, and files could not be obtained from the Retirement Board due to a confidentiality rule. (Other administrative databases: Health Care Professional licensing board files, quarterly State employee wage records linked to SOC codes, Workers Compensation quarterly Tax records containing hours worked, and UI wage records from surrounding states are also planned for use in future analysis.)

Monitoring School District Human Resource Cost Pressures represents the first time since 2001 when WDE 602 files (then, a much more modest "Professional Staff Report") were merged with UI wage records for the analysis of retention in local public education and to examine post-exit earnings in the private sector and in neighboring states (Wolkoff & Podgursky, 2002; Reichardt, 2002). Since then, the WDE 602 report has been transformed into a much more complex process of data collection from local school districts.

Key steps in the use of administrative databases include the analysis of what the data represent, the identification of data integrity issues including an analysis of incentives in the data collection system to misrepresent. This process is complicated by the lack of published information regarding the purpose of the WDE 602 collection. As a result, the purpose(s) of the WDE 602 collection must be inferred from WDE publications using data from the 602 collection such as the Continued Review of Educational Resources in Wyoming publication, and the Statistical Report Series #2 web link. The purpose(s) of a data collection drives collection timelines, quality considerations, cost considerations, and collection techniques which, in turn, shape the manner in which the data can be used.

Data integrity checks reveal that district staff reported on the WDE 602 collection do not always show up on district fall payrolls and that at least one important variable has significant data quality problems. Of the 18,316 staff on the WDE 602 report for the 2011/12 school year, 521 (2.8%) staff failed to appear on the fourth quarter UI payroll for school districts. It is unclear why this difference exists, how extensive the "no

show" effect becomes during the balance of the year, nor what it represents in terms of recruitment costs, the additional use of substitutes, or movement of additional duties to others on the payroll.

The no show effect may also raise questions about the approach to the collection and analysis of data from the "Certified Staff Vacancy Application Information" process (the WDE 633 report). It would appear that districts with larger gaps between the School District Staff report (WDE 602) and the UI payroll tax filing would be encountering and reporting a different pattern of recruitment difficulty than districts with a minimal gap.

Age is a key factor in the prediction of teacher retirement (and therefore the need to recruit and replace teachers). However, when comparing date of birth (DOB) for teachers on the WDE 602 report with DOB on the drivers license file, many records showed differences in days, sometimes years, and periodically a decade. Given the sanctions associated with information on the Wyoming Department of Transportation driver's license file, it was decided to use DOB from this file for analysis involving staff age. It is unclear to what extent district data entry errors characterize other fields on the WDE 602 file.

On the surface, measures can all appear to represent the same thing (e.g. the supply of teachers). However, in practice they can mean quite different things, or they can prove themselves in need of further examination and revision. One of the objectives of this report is to present findings understandable to the non-specialist while at the same time offering enough information about data sources that the reader can capitalize on the data strengths and be cautioned about weaknesses.

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Recommendations and Future Direction

by: Tom Gallagher, Research & Planning Manager

In general, while we have been able to establish baseline tabulations, e.g. establish the usual expected rate of turnover, there has been insufficient time to thoroughly establish historic relationships and contexts, provide basic descriptive statistics, or produce and analyze modeled outcomes (e.g. probability of retirement) that could be used for projection of replacement need. Further, as mentioned, there were unanticipated problems found in some data sets that need resolution, as well as barriers to acquiring other data needed for the analysis.

Recommendation A: Research & Planning (R&P) was unable to obtain files for teachers, other district staff, and information on comparable occupations from the Retirement Board for the analysis of retirement and re-hire patterns. Given the increasingly important role that retirement is likely to play in recruitment and retention of district staff, the Legislature should enact legislation requiring that the Retirement Board provide historic and current individually identifiable files to R&P for analysis.

Professional Teaching Standards Board files were made available too late for report analysis, although they are viewed as important to understanding supply issues and the succession planning analysis mentioned below.

Recommendation B: Subject to feedback from interested and affected parties, we anticipate elaborating on the analysis presented in this report with a goal of establishing a system of dashboard indicators for retention, turnover, wage progression, experience with the industry and tenure with employer in the context of the Wyoming and regional business environment. Comparable data for occupations in Wyoming's health care industry and state government are available to serve as theoretically relevant comparison groups for district staff. As identified in this report, these two sectors are also more similar to public education in the educational attainment and demographics of their workforce than are other sectors.

There are also data sets whose value has yet to be explored, such as the Workers' Compensation tax file containing hours worked, vital statistics records, and others yet to be obtained.

Recommendation C: We recommend continued use of the Occupational Employment Statistics (OES) program as the standard for measuring cost pressures. It is the only source based on comparable sample survey data collection and estimation techniques across all occupations in the public and private sector that is benchmarked to an auditable source of employment, the Unemployment Insurance (UI) quarterly tax record. We will also utilize OES to analyze earnings trends for comparable occupations.

Recommendation D: The analysis presented in chapters 4 and 5, in particular, suggests that there is a need for succession planning. The Wyoming Department of Education, potentially in conjunction with the College of Education at the University of Wyoming, should engage school districts on this topic.

Barriers to the replacement of senior teaching and administrative staff are likely to become increasingly problematic in the near term (three to five years). Research in support of succession planning needs to focus on how districts manage for the transition of institutional knowledge. In practical terms, this means gaining an understanding of how internal district – and intra-industry – labor markets function in the context of teacher access to continuing education. In part, this necessitates a linking of UW student records to employment and earnings change on a longitudinal basis. The student records R&P plans to obtain for Hathaway Scholarship impact analysis are an important part of supporting workforce continuity at the district level through succession planning and monitoring.

Recommendation E: Collaboration with the University and other state entities that reflects research capabilities supporting legislative monitoring of the block grant model could be enhanced. The Department of Education should consider establishing a statistical unit staffed with individuals possessing appropriate advanced social science research backgrounds.

While it is true that anyone can collect data, it is also true that not everyone has the knowledge and skill to collect valid and reliable data relevant to analysis. There are some circumstances in which the Department of Education's data collection efforts appear to challenge district capacity to provide valid responses. A statistical unit within the Department of Education facilitating inter-agency communication and coordination could also be the lead entity to address data quality and validity with school district collections.

Recommendation F: While the Department of Education's website describing and documenting data collection efforts from the districts is comprehensive in that domain, it could be greatly improved by incorporating not just the legal, but theoretical underpinnings of their data collection effort, as well as the purposes to which collected data are put. A more thorough documentation of Department of Education data collection efforts and purposes is necessary in order to facilitate intelligent participation in decisions about the future of our education system by all interested parties.

Recommendation G: Finally, the Department of Education should consider adding a Standard Occupational Classification (SOC) system code to occupations for staffing and vacancy collections. While this would require training in the use of a standardized classification system, it would assist in the comparability of administrative records collected by the Department of Education and OES estimates.

Chapter 1: Regional and National Wage Trends

by: Patrick Manning, Principal Economist

While employment in teaching occupations has declined significantly over the last few years at the national level, Wyoming and the surrounding states did not experience that same decrease. As Figure 1-1 (see page 14) shows, the number of full-time equivalent (FTE) teachers[1] in the U.S. plummeted from the 2008/09 school year to 2010/11, even as student enrollment increased. In Wyoming and surrounding states, the number of full-time equivalent teachers increased, as did student enrollment (see Figure 1-2, page 14).

Teachers are classified as "primary, secondary, and special education teachers" by the Standard Occupational Classification (SOC) system, and given an SOC code of 25-2000. Specific teaching occupations are then defined and broken down into a six-digit SOC code, such as elementary school teachers, except special education, which is classified as SOC 25-2021. The SOC classification structure is presented in Appendix A.

This chapter examines the average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) as a whole, and then examines the wages for selected detailed teaching occupations. The source of employment and wage estimates presented in this chapter is the state-federal Occupational Employment Statistics (OES) program, described in the Methodological Note on page 7. A detailed overview of the OES program is available online at http://doe.state.wy.us/LMI/education_costs/oes_ed_overview.htm.

[1]The National Center for Education Statistics defines full-time equivalent (FTE) employees in the following way: "The full-time equivalent (FTE) of staff is calculated by summing the total number of full-time staff from the Employees by Assigned Position (EAP) component and adding one-third of the total number of part-time staff."

In general, teacher salaries in public schools in Wyoming are higher than in surrounding states and the U.S. as a whole (see Figure 1-3, page 15). Of the 10 specialized teaching occupations that are included in all primary, secondary, and special education teachers (SOC 25-2000), the average annual wage for Wyoming is higher than the national average for six, and is lower than the national average in four.

This chapter also compares selected non-teaching occupations in public schools in Wyoming to those found in private industry, state government, and federal government in Wyoming, the U.S., and surrounding states.

Wages by Occupation

The data referenced in this section appear in *Table 1: Employment and Mean Wage by State, Region, U.S., and Ownership for Occupations in Public Schools in Wyoming or Bordering State in 2010/11*, which is available online at http://doe.state.wy.us/LMI/education_costs/Table1_OES_EMPWAGES201011_20121005_.pdf. Each occupation described below contains the page number from Table 1 where the specific information is located.

Table 2: Employment and Relative Wage Ratio (to Wyoming Schools Wage) by State, Region, U.S., and Ownership for Occupations in Public Schools in Wyoming or Bordering State in 2010/11 uses the same data from Table 1 to show the average annual wage in surrounding states and the U.S. as a

ratio to the average annual wage for Wyoming. This table is available at http://doe.state.wy.us/LMI/education_costs/Table2_OES_RELATIVEWAGE201011_20121005_.pdf.

Data from these tables (and Table 4) were used to create summary tables of all teaching occupations in public schools, which can be found in Appendix B. These summary tables show the change in employment and average annual wage in Wyoming, surrounding states, and the U.S. from 2008/09 to 2010/11. These summary tables also show how the average annual wage for each teaching occupation in Wyoming compares to the average annual wage for that occupation in each surrounding state and the U.S. An excerpt from Appendix B for all primary, secondary, and special education teachers (SOC 25-2000) is presented in Table 1-1 on page 17.

This section explores the wage and employment characteristics among teachers in Wyoming, the U.S., and surrounding states. All primary, secondary, and special education teachers (SOC 25-2000) are compared, followed by six different teaching occupations based on their SOC classifications.

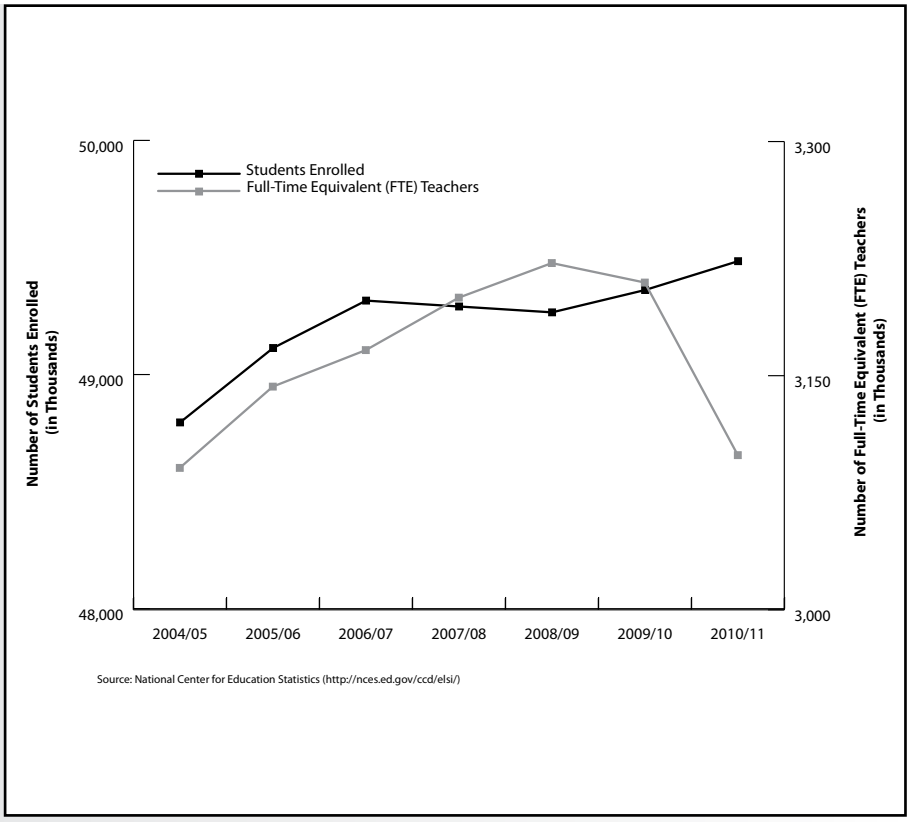


Figure 1-1: Student Enrollment and Full-Time Equivalent (FTE) Teachers in the U.S. (including Washington, D.C.), 2004/05 to 2010/11

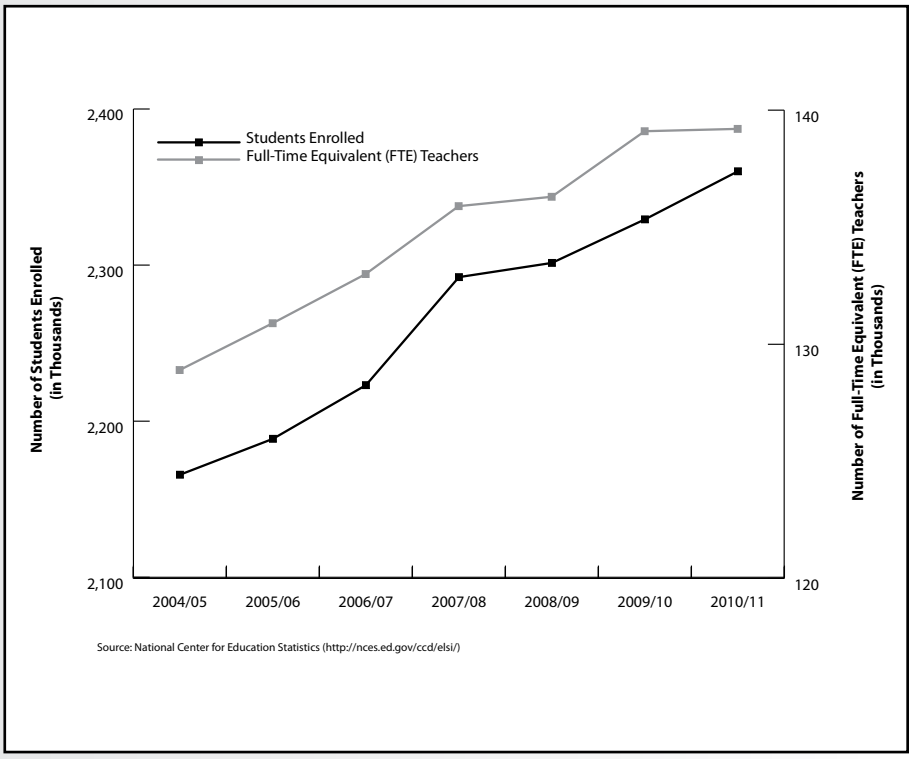


Figure 1-2: Student Enrollment and Full-Time Equivalent (FTE) Teachers in Wyoming and Border States, 2004/05 to 2010/11

All Primary, Secondary, and Special Education Teachers (SOC 25-2000)

Table 1, page 18

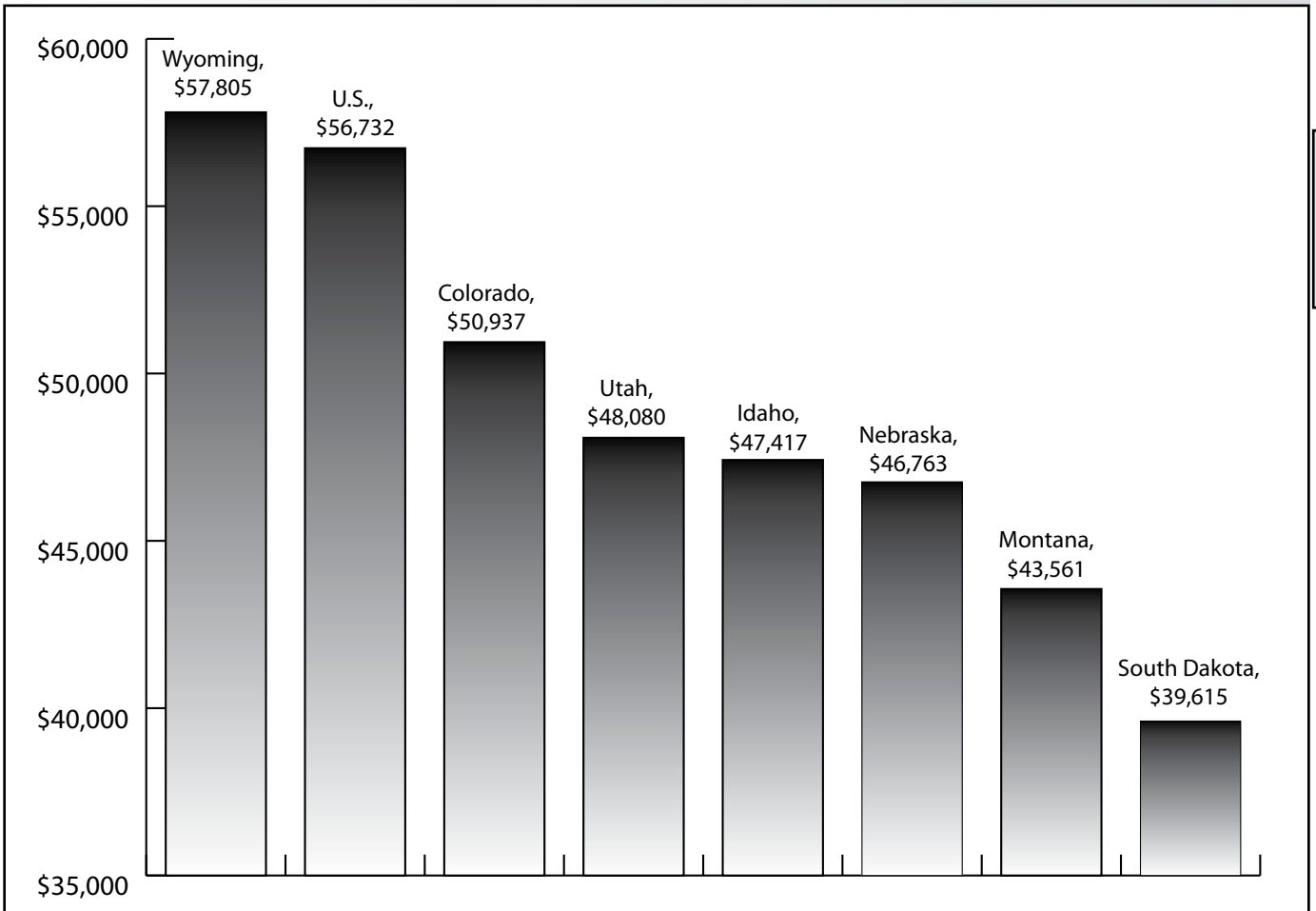
During the 2010/11 school year, the average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) in public schools in Wyoming ($57,805) was higher than in surrounding states and the U.S. as a whole. During this school year, the average annual wage for all teachers in public schools in the U.S. was $56,732, $1,073 (-1.9%) lower than the average annual wage in Wyoming.

In surrounding states, the average annual wage was considerably lower. In Colorado, for example, the average annual wage for all teachers was $50,937, $6,868 (-11.9%) less than Wyoming. The gap in pay was even wider in South Dakota, where the average annual wage was $39,615, $18,190 (-31.5%) lower than in Wyoming.

Preschool Teachers, Except Special Education (SOC 25-2011)

Table 1, page 18

The average annual wage for preschool teachers, except special education in public



Source: Occupational Employment Statistics Survey Files, U.S. Bureau of Labor Statistics.
Estimates by T Glover, Research & Planning, Wyoming Department of Workforce Services, 9/7/2012.

Figure 1-3: Average Annual Wage for Primary, Secondary, and Special Education School Teachers (SOC 25-2000) in Public Schools (NAICS 611100), 2010-11

schools in Wyoming ($43,170) was less than in the U.S. ($48,110) and Colorado ($50,470), but higher than all other surrounding states. This may stem at least partially from the small number of preschool teachers in public schools in Wyoming (n = 26).

Strong conclusions should not be drawn from this classification, given the small number of teachers in several of the states analyzed.

Kindergarten Teachers, Except Special Education (SOC 25-2011)

Table 1, page 18

The average annual wage for kindergarten teachers in public schools in Wyoming ($53,790) was higher than in all surrounding states, but slightly less than the national average ($54,920). The largest difference in pay was found in South Dakota, where kindergarten teachers earned $38,230 on average, $15,560 (-28.9%) less than kindergarten teachers in Wyoming. Kindergarten teachers in Colorado had the closest average annual wage of all surrounding states, earning $48,670 on average (-$5,120, or -9.5%).

Understanding Table 1-1

Table 1-1 (see page 17) uses data collected from the Occupational Employment Statistics (OES) survey to show the employment level and average annual wage for all primary, secondary, and special education teachers (25-2000) in public schools in Wyoming and surrounding states for the 2008-09 and 2010-11 school years. This table also allows for a quick comparison of the average annual wage for surrounding states and the U.S. to that of Wyoming.

The first column in Table 1-1 provides information regarding the employment and average wage within each surrounding state and the U.S. In many cases, employment decreased while the average annual wage increased. For example, Wyoming had an estimated 8,227 jobs worked by teachers in public education in 2008/09; in 2010/11, that number decreased to 7,762, a change of -465 (-5.7%). During this period, the average annual wage increased in Wyoming from $56,127 to $57,805, a change of $1,678 (3.0%). Utah had the largest decrease in employment with 11.2%, while Colorado and South Dakota saw the only increases.

The second column compares the average annual wage for the U.S. and surrounding states to that of Wyoming. In 2009, the U.S. average annual wage for teaching jobs was $54,547, compared to Wyoming's $56,127, a difference of $1,580 (-2.8%). In 2011 the gap between Wyoming and the U.S. average wage narrowed slightly to -1.9%. The states that narrowed the average wage gap compared to Wyoming were Colorado, Montana, Nebraska, and Utah. South Dakota experienced no change in the gap compared to Wyoming, while the gap between Idaho and Wyoming widened (-12.5% in 2009 to -18.0% in 2011).

Elementary School Teachers, Except Special Education (SOC 25-2021)

Table 1, page 19

Elementary school teachers made up the largest percentage of all teachers in Wyoming (37.9%) and the U.S. (37.1%; see Figure 1-4, page 19). The average annual wage for

(Text continued on page 18)

Table 1-1: Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and Surrounding States, 2008/09 and 2010/11

This group is a composite of all teachers involved in direct instruction in the classroom.

Wyoming

Employment				
2009	2011	Change	%	
8,227	7,762	-465	-5.7%	↓

Average Annual Wage				
2009	2011	Change	%	
$56,127	$57,805	$1,678	3.0%	↑

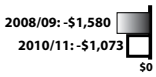
Wyoming teachers were paid more than teachers in surrounding states in both 2008-09 and 2010-11. The large gap in pay exists between Wyoming and South Dakota, where teachers were paid 31.5% less in South Dakota than in Wyoming during both years. The gap in between Wyoming teachers and those in surrounding states has narrowed in some states, such as Colorado (change from -12.4% to -11.9%) and Montana (-28.7% to -24.6%).

U.S.

Employment				
2009	2011	Change	%	
3,707,950	3,445,760	-262,190	-7.1%	↓

Average Annual Wage				
2009	2011	Change	%	
$54,547	$56,732	$2,185	4.0%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$1,580	-2.8%	-$1,073	-1.9%

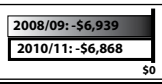


Colorado

Employment				
2009	2011	Change	%	
60,360	60,842	482	0.8%	↑

Average Annual Wage				
2009	2011	Change	%	
$49,188	$50,937	$1,749	3.6%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$6,939	-12.4%	-$6,868	-11.9%

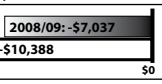


Idaho

Employment				
2009	2011	Change	%	
16,954	15,269	-1,685	-9.9%	↓

Average Annual Wage				
2009	2011	Change	%	
$49,090	$47,417	-$1,673	-3.4%	↓

Comparison to Wyoming Wage			
2009	%	2011	%
-$7,037	-12.5%	-$10,388	-18.0%

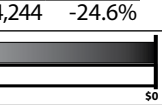


Montana

Employment				
2009	2011	Change	%	
13,036	12,147	-889	-6.8%	↓

Average Annual Wage				
2009	2011	Change	%	
$40,036	$43,561	$3,525	8.8%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$16,091	-28.7%	-$14,244	-24.6%

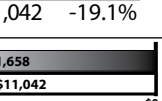


Nebraska

Employment				
2009	2011	Change	%	
25,831	24,175	-1,656	-6.4%	↓

Average Annual Wage				
2009	2011	Change	%	
$44,469	$46,763	$2,294	5.2%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$11,658	-20.8%	-$11,042	-19.1%

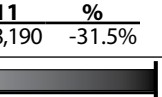


South Dakota

Employment				
2009	2011	Change	%	
11,549	11,780	231	2.0%	↑

Average Annual Wage				
2009	2011	Change	%	
$38,436	$39,615	$1,179	3.1%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$17,691	-31.5%	-$18,190	-31.5%

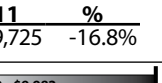


Utah

Employment				
2009	2011	Change	%	
28,186	25,032	-3,154	-11.2%	↓

Average Annual Wage				
2009	2011	Change	%	
$46,145	$48,080	$1,935	4.2%	↑

Comparison to Wyoming Wage			
2009	%	2011	%
-$9,982	-17.8%	-$9,725	-16.8%



Source: Occupational Employment Statistics.

Chapter 1

(Text continued from page 16)

elementary school teachers in public schools in Wyoming ($57,450) was higher than in surrounding states and the U.S. as a whole. Nationally, elementary school teachers earned $56,380 (-$1,070, or -1.9%). Within surrounding states, elementary school teachers in Colorado again had the closest average annual wage ($50,270; -$7,180, or -12.5%) while average annual wage for these teachers in South Dakota ($39,580) was $17,870 (-31.1%) less than in Wyoming.

Middle School Teachers, Except Special and Career/Technical Education (SOC 25-2022)

Table 1, page 19

The difference in average annual wage between Wyoming and surrounding states was greater in this occupation than in any other teaching occupation. Wyoming's middle school teachers were paid an average annual wage of $60,090, compared to $50,180 for Colorado, which was the surrounding state with the highest wage.

Career/Technical Education Teachers, Middle School (SOC 25-2023)

Table 1, page 19

This occupation accounted for a slightly larger percentage of total teacher employment in Wyoming (1.0%) than in the U.S. (0.4%). The average annual wage for Wyoming teachers in this occupation ($57,820) was higher than the national average ($56,510) and for all surrounding states. The closest wage was found in Colorado ($51,360), while the biggest gap was seen in Montana ($32,970).

Secondary School Teachers, Except Special and Career/Technical Education (SOC 25-2031)

Table 1, page 20

The average annual wage for Wyoming ($58,130) was considerably higher than all surrounding states. Colorado had the closest average wage ($51,970).

Wage Trends for Wyoming and Surrounding States

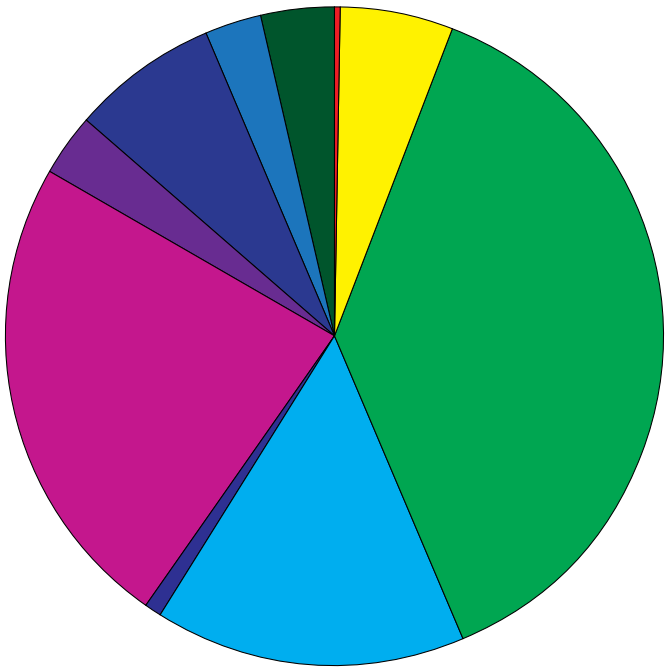
The information presented in this section was gathered from *Table 3: Employment and Mean Wage Change by State, Region, U.S., and Ownership for Occupations in Public Schools in Wyoming or Bordering State from 2008/09 to 2010/11*, which is available online at http://doe.state.wy.us/LMI/education_costs/Table3_OES_MPWAGECHANGE200809to201011_20121005_.pdf.

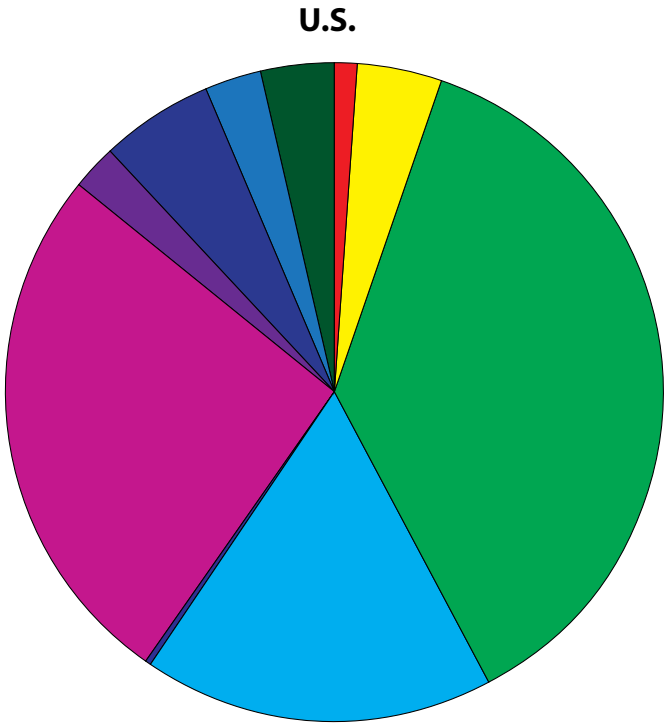
Table 1-1 shows the change in employment and average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) in Wyoming, surrounding states, and the U.S. from the 2008/09 to 2010/11 school years. This summary table also shows the average annual wage for teachers in each state compared to Wyoming.

From the 2008/09 to 2010/11 school years, employment among all primary, secondary, and special education teachers (SOC 25-2000) decreased nationally and in Wyoming. Employment decreased in most surrounding states as well, with the exception of Colorado and South Dakota.

Conversely, the average annual

(Text continued on page 20)





- Preschool Teachers, Except Special Education (25-2011)
- Kindergarten Teachers, Except Special Education (25-2012)
- Elementary School Teachers, Except Special Education (25-2021)
- Middle School Teachers, Except Special & Career/Technical Education (25-2022)
- Career/Technical Education Teachers, Middle School (25-2023)
- Secondary School Teachers, Except Special & Career/Technical Education (25-2031)
- Career/Technical Education Teachers, Secondary School (25-2032)
- Special Education Teachers, Preschool, Kindergarten, & Elementary School (25-2041)
- Special Education Teachers, Middle School (25-2053)
- Special Education Teachers, Secondary School (25-2054)

Occupation	Percentage of Total Employment WY	U.S.
Preschool Teachers, Except Special Education (25-2011)	0.3	1.3
Kindergarten Teachers, Except Special Education (25-2012)	5.6	4.0
Elementary School Teachers, Except Special Education (25-2021)	37.9	37.1
Middle School Teachers, Except Special and Career/Technical Education (25-2022)	15.1	17.1
Career/Technical Education Teachers, Middle School (25-2023)	1.0	0.4
Secondary School Teachers, Except Special & Career/Technical Education (25-2031)	23.5	25.9
Career/Technical Education Teachers, Secondary School (25-2032)	3.2	2.4
Special Education Teachers, Preschool, Kindergarten, & Elementary School (25-2041)	7.1	5.5
Special Education Teachers, Middle School (25-2053)	2.7	2.7
Special Education Teachers, Secondary School (25-2054)	3.6	3.5
Total, All Primary, Secondary, & Special Education Teachers (25-2000)	**100.0**	**100.0**

Source: Occupational Employment Statistics Survey Files, U.S. Bureau of Labor Statistics.
Estimates by T Glover, Research & Planning, Wyoming Department of Workforce Services, 9/7/2012.

Figure 1-4: Occupational Staffing Patterns for Primary, Secondary, & Special Education Teachers in Public Schools in Wyoming and the U.S., 2011

(Text continued from page 18)

wage for teachers increased during this period in the U.S., Wyoming, and all surrounding states, except Idaho. The average annual wage for teachers in Wyoming increased by 3.0% ($1,678), compared to 4.0% ($2,185) nationally. The largest percentage increase in wages in states surrounding Wyoming occurred in Montana (8.8%, or $3,525). Despite this increase, the average annual wage for teachers in Montana was considerably lower than in Wyoming. Idaho was the only border state to experience a decrease in the average annual wage of teachers (-3.4%, or -$1,673).

The change in wages during this time may be partially attributed to the change in employment. One possibility is that as states shed jobs during the recent economic downturn, lower-paying positions with less seniority were the first positions cut, which could cause the average wage to rise. Further research could examine the merits of this hypothesis.

Table 1-1 also shows how the average annual wage for teachers in surrounding states and the U.S. compared relative to the average annual wage for teachers in Wyoming. The purpose of this is to illustrate whether wages for surrounding states and the U.S. are increasing or decreasing in relation to Wyoming wages. For example, while the average annual wage for teachers in Montana was substantially lower than in Wyoming for both 2008/09 (-28.7%) and 2010/11 (-24.6%), the wage gap between the two states narrowed during this period. Conversely, the wage difference between Wyoming and Idaho teaching wages widened from a 12.5% difference in 2008/09 to 18.0% in 2010/11.

Salaries for Non-Teaching Occupations

At the broadest level, the occupational staffing pattern for public schools in Wyoming is very similar to the staffing pattern for public schools nationally and in surrounding states (see Figure 1-5, page 21). During the 2011/12 school year, non-teaching occupations accounted for an estimated 35.1% of all occupations in public schools in Wyoming, compared to 33.3% in the U.S., 37.2% in Colorado, and 34.8% in South Dakota.

School districts are often competing with private industry and state and federal government to fill non-teaching jobs, which range from cooks and food preparation workers (SOC 35-2000) to health diagnosing and treating practitioners (29-1000).

Figure 1-6 (see page 22) presents the idea that a relationship exists between wages and geographic boundaries for recruitment. Employers who are looking to fill a lower-paying job, such as cooks and food preparation workers, will likely compete with local employers for workers. Employers filling a higher paying job, such as computer specialists (SOC 15-1000), are likely to compete with employers on a more regional or national scale.

This section examines how the wages for four non-teaching occupations in public schools compare to the same occupation in private industry or state or federal government. The data referenced in this section were taken from *Table 1: Employment and Mean Wage by State, Region, U.S., and Ownership for Occupations in Public Schools in Wyoming or Bordering State in 2010/11*, which is available online at http://doe.state.

wy.us/LMI/education_costs/Table1_OES_EMPWAGES201011_20121005_.pdf. An excerpt of this table is presented in Table 1-2 on page 23.

Other Management Occupations (SOC 11-9000)
Table 1, page 4

This group includes education administrator occupations at all levels in public schools. The average annual wage in Wyoming for other management occupations (SOC 11-9000) in public schools was $85,167, less than the national average ($90,015) but higher than all surrounding states.

Computer Specialists (SOC 15-1000)
Table 1, page 8

The average annual wage for computer specialists varies considerably between Wyoming, surrounding states, and the U.S. Computer specialists in public schools in Wyoming earn less than in several other industries nationally, regionally, and within Wyoming. For example, the average annual wage for computer specialists in public education in Wyoming was $51,683 in 2010/11, compared to $58,872 for computer specialists in private industry in Wyoming. This is a difference of $7,189 (13.9%)

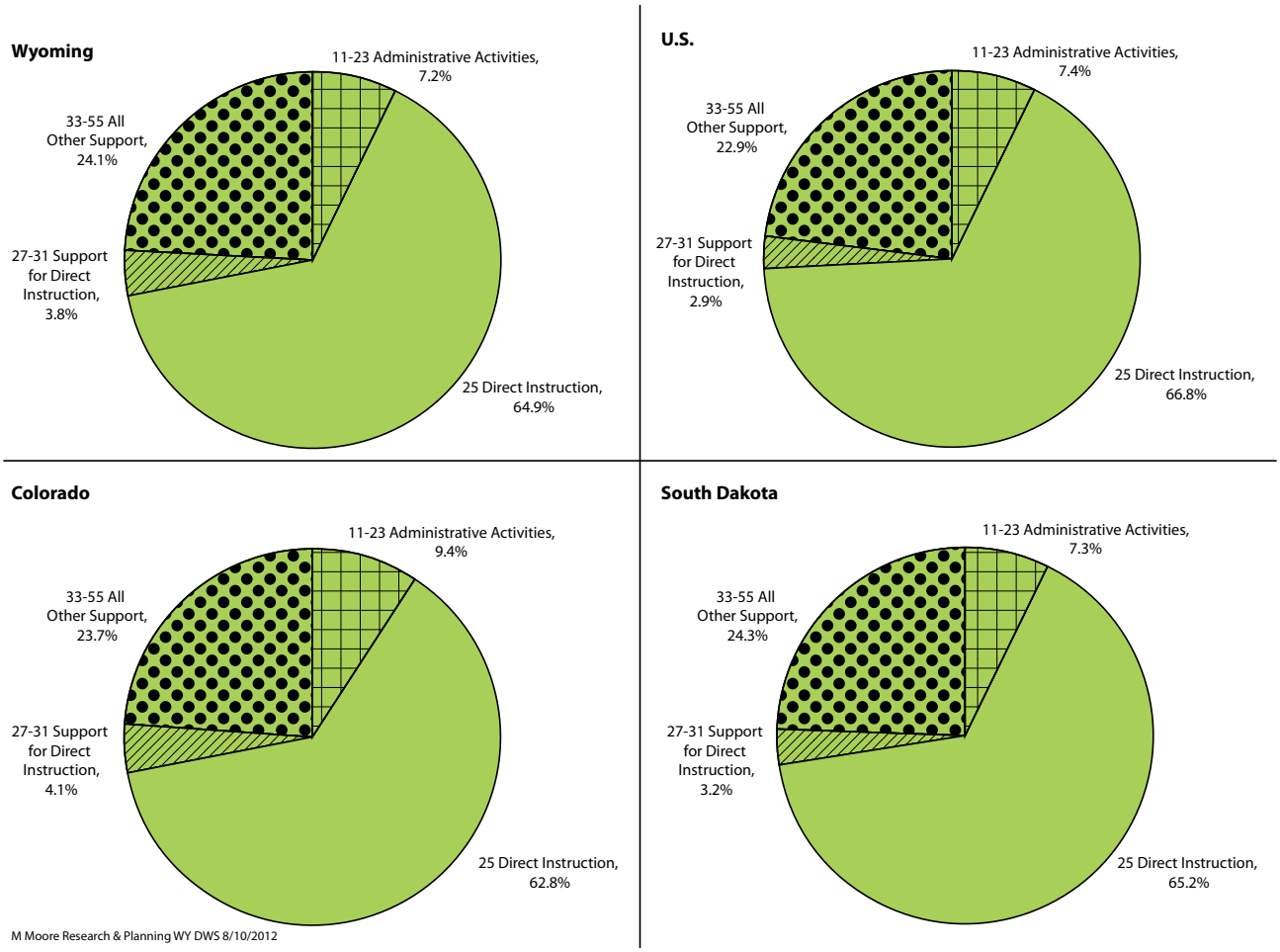


Figure 1-5: **Occupational Staffing Patterns in Public Schools for the U.S., Wyoming, and Selected Surrounding States, 2011**

annually. School districts may face significant cost pressures in situations like this.

Health Diagnosing and Treating Practitioners (SOC 29-1000)

Table 1, page 30

The average annual wage for health diagnosing and treating practitioners varies by state and industry, but the difference is not as large as that seen among computer specialists. Health diagnosing and treating practitioners in public education in Wyoming earned an average annual wage of $58,512 in 2010/11, compared to $61,923 across all industries in Wyoming.

Wyoming school districts may face substantial cost pressures from Colorado school districts for these occupations. Health diagnosing and treating practitioners in public education in Colorado had an average annual wage of $82,940, or $24,428 (41.8%) more than Wyoming.

(Text continued on page 24)

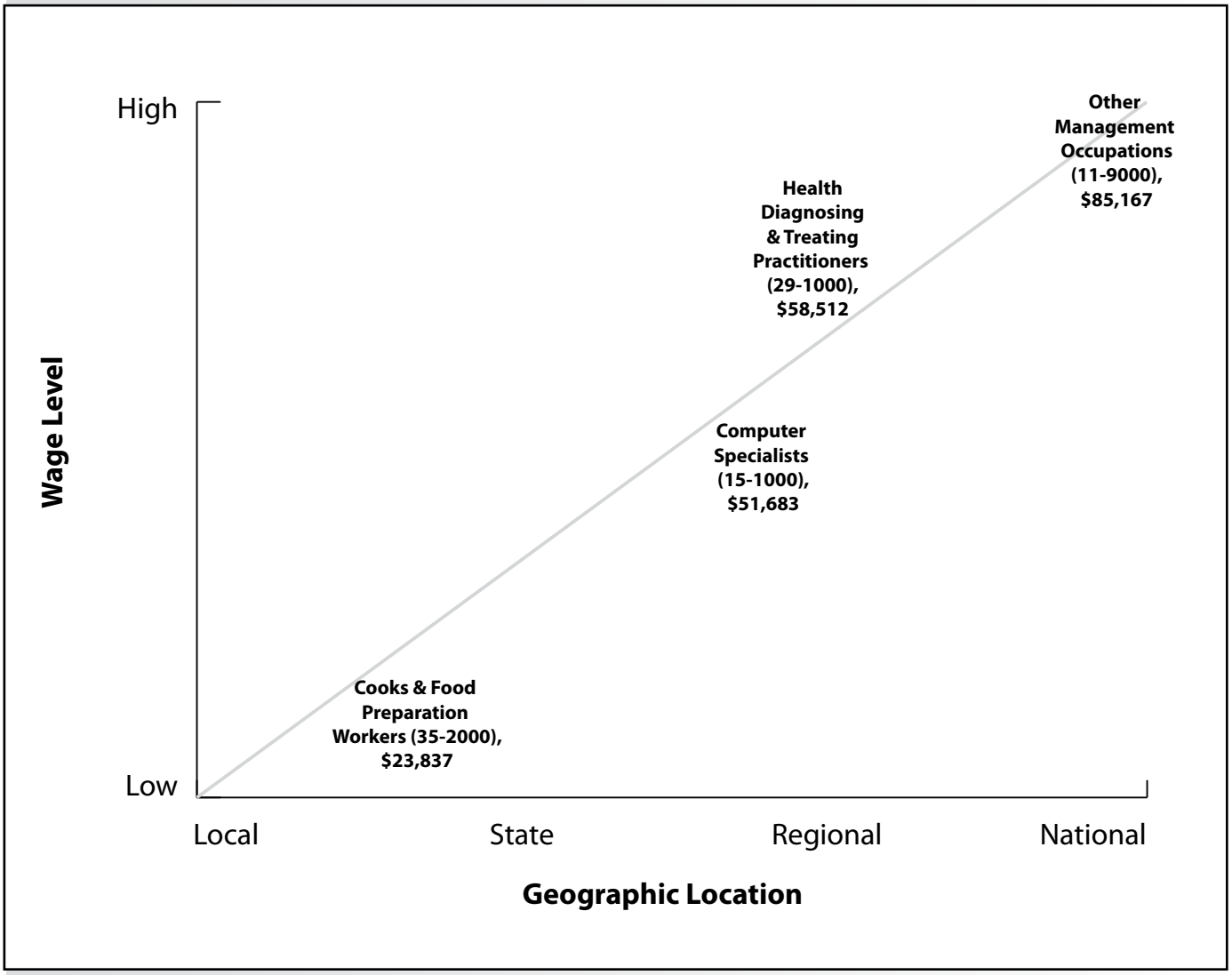


Figure 1-6: **General Perspective on Wage Compensation and the Geographic Scope of Competition**

Table 1-2: **Employment and Mean Wage by State, Region, U.S., and Ownership for Occupations in Public Schools in Wyoming or Bordering State in 2010/11 (Excerpt)**

Other Management Occupations (SOC 11-9000)

	Total, All Industries		Public Schools		Local Government		State Government		Federal Government		Private Industry	
	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage
U.S.	1,550,480	$87,472	211,060	$90,015	308,550	$87,879	113,650	$91,018	73,640	$112,633	1,054,200	$85,205
WY & Border States	59,028	$79,554	10,224	$81,152	15,457	$78,805	6,782	$85,279	2,783	$104,254	34,059	$76,722
Colorado	21,747	$88,174	4,707	$84,387	6,513	$86,267	2,090	$98,028	1,438	$107,298	11,714	$85,124
Idaho	7,094	$67,786	1,209	$73,435	1,798	$68,048	642	$73,155	153	$106,458	4,511	$65,584
Montana	4,404	$67,012	672	$69,663	1,153	$64,869	1,023	$64,648	262	$101,820	1,972	$64,836
Nebraska	9,117	$77,612	1,398	$83,767	2,293	$76,441	802	$83,613	197	$107,832	5,832	$76,220
South Dakota	3,046	$70,885	576	$70,162	798	$68,574	286	$81,454	264	$90,634	1,704	$67,132
Utah	10,205	$80,573	1,170	$83,308	1,747	$78,994	1,443	$84,718	381	$100,918	6,642	$78,915
Wyoming	3,415	$75,158	492	$85,167	1,155	$78,859	496	$96,336	88	$105,221	1,684	$64,813

Computer Specialists (SOC 15-1000)

	Total, All Industries		Public Schools		Local Government		State Government		Federal Government		Private Industry	
	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage
U.S.	3,267,870	$78,395	54,650	$53,420	148,140	$60,459	140,090	$63,004	77,500	$88,479	2,902,090	$79,784
WY & Border States	167,489	$73,091	2,875	$53,193	7,938	$58,597	7,763	$58,306	4,528	$81,143	147,312	$74,399
Colorado	85,791	$81,186	1,300	$61,747	3,716	$65,917	1,932	$70,019	2,003	$87,185	78,149	$82,033
Idaho	12,986	$58,744	265	$47,884	640	$48,562	832	$46,791	240	$75,429	11,282	$59,846
Montana	6,280	$55,442	266	$36,059	482	$40,070	1,115	$52,212	215	$72,369	4,476	$57,086
Nebraska	22,968	$67,537	318	$51,398	1,123	$61,356	993	$53,804	584	$76,066	20,274	$68,305
South Dakota	6,030	$56,273	250	$42,597	505	$46,185	479	$49,124	184	$69,249	4,867	$57,515
Utah	31,192	$68,841	257	$46,953	914	$53,237	1,965	$60,027	1,615	$79,649	27,155	$69,540
Wyoming	2,242	$57,154	219	$51,683	558	$51,827	447	$56,590	137	$66,900	1,109	$58,872

Health Diagnosing and Treating Practitioners (SOC 29-1000)

	Total, All Industries		Public Schools		Local Government		State Government		Federal Government		Private Industry	
	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage
U.S.	3,381,040	$69,237	119,220	$61,416	374,930	$64,561	163,870	$67,330	88,460	$80,928	2,749,990	$69,611
WY & Border States	146,551	$63,773	6,488	$69,256	18,358	$64,536	7,246	$62,667	4,308	$71,060	116,690	$63,450
Colorado	55,082	$69,121	3,531	$82,940	8,480	$72,384	3,365	$71,237	1,348	$74,579	41,900	$68,117
Idaho	14,372	$62,918	422	$49,872	2,068	$60,691	353	$54,763	307	$74,740	11,651	$63,248
Montana	10,760	$60,197	192	$47,857	557	$49,914	265	$51,011	405	$65,544	9,539	$60,811
Nebraska	23,963	$59,762	965	$53,343	2,786	$55,342	705	$56,659	565	$66,991	19,914	$60,283
South Dakota	12,937	$56,038	420	$45,545	726	$49,807	414	$46,754	748	$86,213	11,053	$56,095
Utah	23,183	$62,218	562	$57,766	1,147	$56,964	1,903	$56,912	620	$72,510	19,521	$62,716
Wyoming	6,254	$61,923	396	$58,512	2,594	$62,436	241	$57,758	315	$75,461	3,112	$60,436

Cooks and Food Preparation Workers (35-2000)

	Total, All Industries		Public Schools		Local Government		State Government		Federal Government		Private Industry	
	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage
U.S.	1,695,270	$21,107	180,330	$23,009	221,680	$23,213	20,340	$28,603	2,510	$41,140	1,450,730	$20,645
WY & Border States	76,297	$20,707	11,907	$23,123	14,551	$22,985	1,323	$28,079	237	$36,823	60,195	$19,931
Colorado	20,992	$22,573	4,331	$25,716	4,724	$25,573	677	$31,095	70	$34,420	15,523	$21,234
Idaho	10,463	$19,430	1,703	$19,915	20,205	$20,590	39	$26,640	12	$39,830	8,388	$19,085
Montana	6,800	$20,646	883	$22,941	1,615	$22,869	133	$23,254	39	$43,610	5,464	$19,944
Nebraska	13,977	$19,663	1,592	$21,285	2,219	$21,085	308	$24,796	17	$30,900	11,437	$19,238
South Dakota	8,846	$19,839	970	$21,380	1,213	$21,219			79	$36,430	7,551	$19,448
Utah	11,539	$19,973	1,884	$22,390	2,221	$2,115	83	$22,558	10	$36,050	9,225	$19,413
Wyoming	3,680	$22,165	544	$23,837	984	$24,058	80	$30,070	10	$37,510	2,607	$21,153

Source: Occupational Employment Statistics Survey Files, U.S. Bureau of Labor Statistics.

Full table available at http://doe.state.wy.us/LMI/education_costs/Table1_OES_EMPWAGES201011_20121005_.pdf.

(Text continued from page 22)

Cooks and Food Preparation Workers

(35-2000)
Table 1, page 38

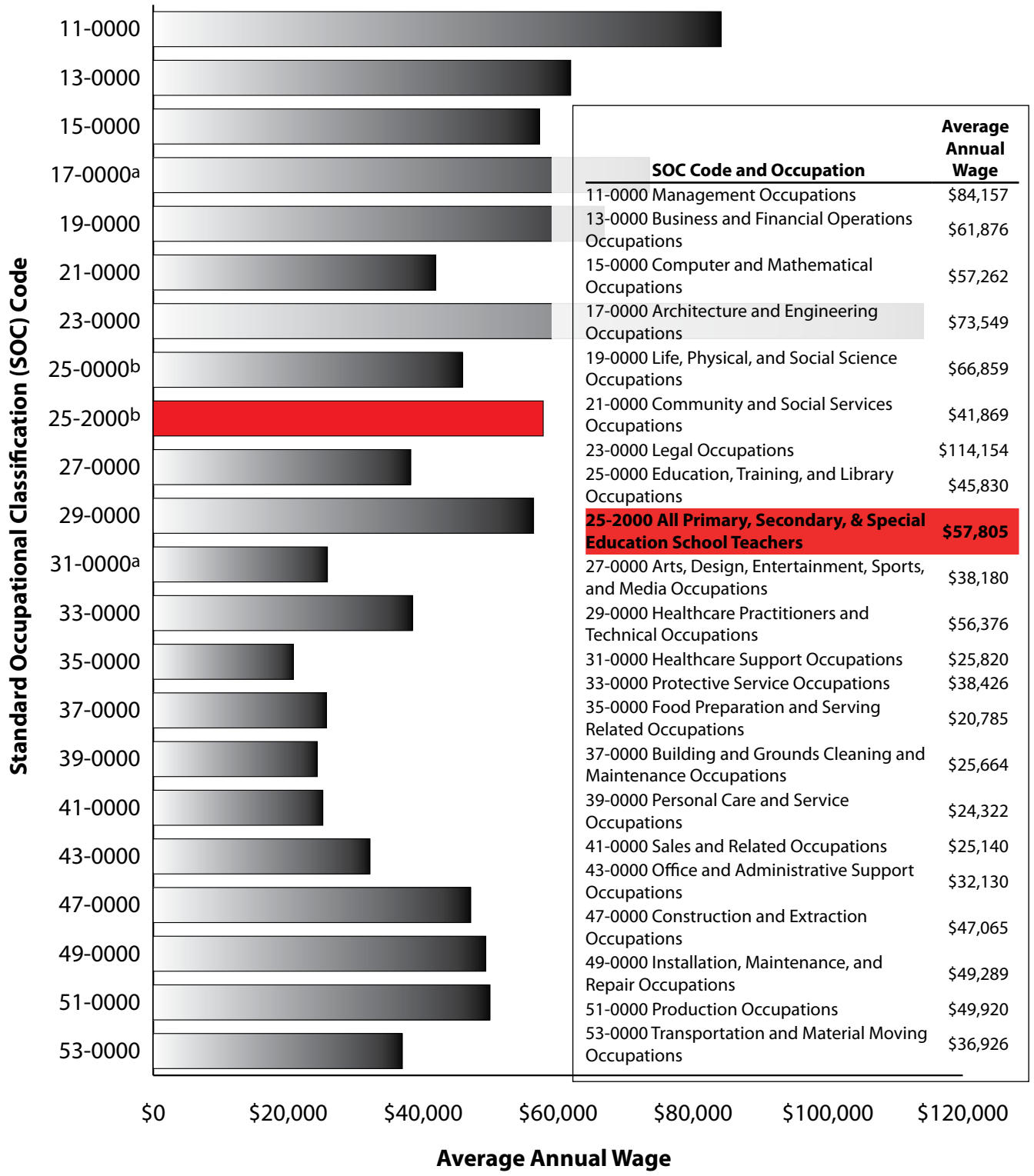
School districts face low cost pressure for these occupations. Because the average annual wage in public schools in Wyoming was relatively low ($23,837), school districts are likely to compete with employers in Wyoming's private industry for workers to fill these occupations. The average annual wage for these occupations in private industry in Wyoming ($21,153) was comparable to that in public schools.

More Information

OES estimates of employment and wages by occupation are available for the Cheyenne and Casper Metropolitan Statistical Areas, and for four multi-county regional areas at http://doe.state.wy.us/LMI/EDSMarch2012/TOC000.htm. In addition, several synthetic occupational employment and wage estimates based on OES data are available at the county level. However, analysis of these data are beyond the scope of this paper.

Future studies by Research & Planning will examine how teachers' wages compare to other similar occupations. Figure 1-7 (see page 25) compares the average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) in public schools in Wyoming to the major occupational groups across all industries in Wyoming. This shows, for example, that teachers made considerably less than management occupations (SOC 11-0000) and legal occupations (SOC 23-0000) but considerably more than protective service occupations (SOC 33-0000) and community and social services occupations (SOC 21-0000).

While this method of comparing teacher salaries to those of other occupations is useful, it has inherent limitations. Ongoing research by R&P is intended to advance the methodology of comparing teacher salaries to occupations with similar skills, abilities, and educational attainment.



SOC Code and Occupation	Average Annual Wage
11-0000 Management Occupations	$84,157
13-0000 Business and Financial Operations Occupations	$61,876
15-0000 Computer and Mathematical Occupations	$57,262
17-0000 Architecture and Engineering Occupations	$73,549
19-0000 Life, Physical, and Social Science Occupations	$66,859
21-0000 Community and Social Services Occupations	$41,869
23-0000 Legal Occupations	$114,154
25-0000 Education, Training, and Library Occupations	$45,830
25-2000 All Primary, Secondary, & Special Education School Teachers	**$57,805**
27-0000 Arts, Design, Entertainment, Sports, and Media Occupations	$38,180
29-0000 Healthcare Practitioners and Technical Occupations	$56,376
31-0000 Healthcare Support Occupations	$25,820
33-0000 Protective Service Occupations	$38,426
35-0000 Food Preparation and Serving Related Occupations	$20,785
37-0000 Building and Grounds Cleaning and Maintenance Occupations	$25,664
39-0000 Personal Care and Service Occupations	$24,322
41-0000 Sales and Related Occupations	$25,140
43-0000 Office and Administrative Support Occupations	$32,130
47-0000 Construction and Extraction Occupations	$47,065
49-0000 Installation, Maintenance, and Repair Occupations	$49,289
51-0000 Production Occupations	$49,920
53-0000 Transportation and Material Moving Occupations	$36,926

Source: Occupational Employment Statistics (OES).
[a]Average Annual Wage for Wyoming and Surrounding States.
[b]Only in Public Schools.

Figure 1-7: **Average Annual Wage for All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools and Other Occupations (Across All Industries) in Wyoming, 2010/11**

Research & Planning
Wyoming DWS

Chapter 2: Local Wage Trends and Commuting

by: Patrick Manning, Principal Economist

While wages for teaching jobs in Wyoming are often substantially higher than in surrounding states and the nation, Wyoming's counties paint a different picture in terms of wages.

The previous chapter discussed the differences in employment and wages between Wyoming, surrounding states, and the U.S. using OES survey data. In contrast, this chapter examines employment and wages at the county level for Wyoming using contract data from the Wyoming Department of Education (WDE602). This information is provided in detail in *Table 5: Wyoming Department of Education Contractual Staffing Data; 2010/11 Employment and Contract Wages, 2010/11*, which is available at http://doe.state.wy.us/LMI/education_costs/Table5_WDE_Contract_Data_20121005_.pdf.

In Chapter 1, interstate and comparisons to the nation were based on OES establishment survey data. As we pointed out in the Methodological Note and illustrate in Appendix A: Data Collection Schematic, the OES survey represents a sample-based estimate of the average number of jobs worked (the estimated average wage for all teachers in Wyoming for 2010/11 is $57,805). As a sample survey, OES estimates are not available at the geographic detail of interest. The WDE 602 data file representing the "Fall School District Staff Member Collection" is a point in time census, or what we have been referring to as a contract file of administrative data (the average teacher contract wage is $57,284). For illustrative purposes, this chapter compares the two sources of data to point out, for example, that while Wyoming as a whole appears to be competitively positioned, not all counties may be considered to be equally positioned relative to surrounding states and the nation. In this case, the two measures are very close in concept, but should not be mistaken for one another.

Some data for teaching occupations at the county level are not available for analysis because the low number of teachers in that occupation is a confidentiality issue. Therefore, these occupations are not included in Table 5 and will not be discussed in this chapter.

The first section of this chapter discusses wages at the county level for the 2010/11 school year. For each of the selected occupations presented in this section of the chapter, Teton County had the highest average annual wage of all counties.

All Primary, Secondary, and Special Education Teachers (SOC 25-2000)

The statewide average annual wage for Wyoming for the 2010/11 school year was $57,284. Wages in Teton County were 11.6% higher than the statewide average, while wages were 19.7% lower than the statewide average in Niobrara County. Figure 2-1 (see page 28) shows the average annual wage for each county from highest to lowest.

Elementary School Teachers, Except Special Education (SOC 25-2021)

The statewide average for this occupation in 2010/11 was $56,093. Teton County again had the highest average annual wage (14.3% higher than the statewide average),

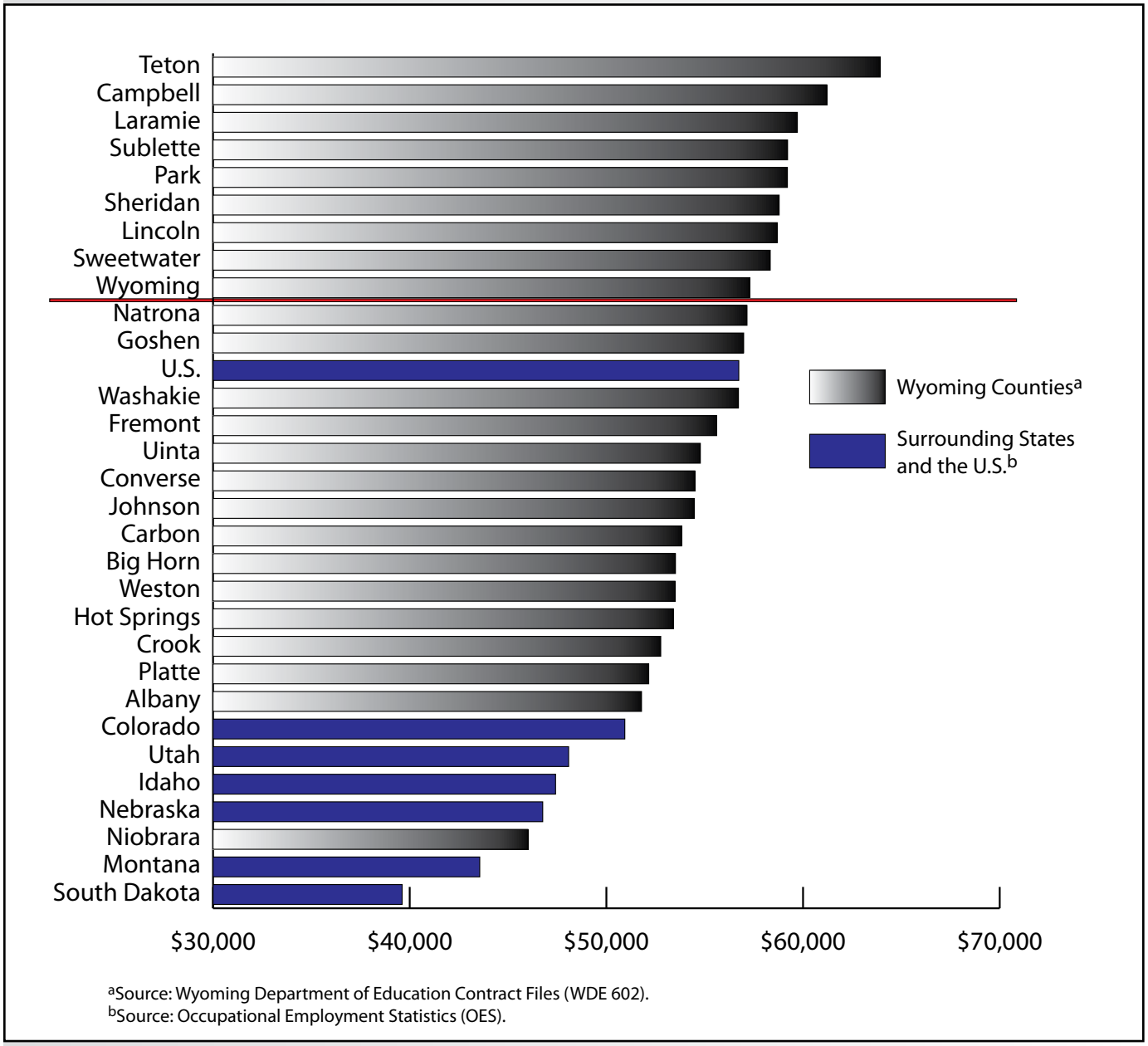
while Crook County had the lowest wage (8.9% lower than the statewide average).

Middle School Teachers, Except Special and Career/Technical Education (SOC 25-2022)

The statewide average annual wage for this occupation was $57,826. The average annual wage for Teton County was 10.6% higher, while the average wage for Albany County was 12.7% lower.

Secondary School Teachers, Except Special and Career/ Technical Education (SOC 25-2031)

The statewide average annual wage



[a]Source: Wyoming Department of Education Contract Files (WDE 602).
[b]Source: Occupational Employment Statistics (OES).

Figure 2-1: **Average Annual Wage for Primary, Secondary, and Special Education School Teachers (SOC 25-2000) in Public Schools (NAICS 611100) in Wyoming (including Counties), Surrounding States, and the U.S., 2010/11**

was $59,360. The average annual wage for Teton County was 7.2% higher than the statewide average, while the average wage for Niobrara County was 18.6% less than the statewide average.

As stated in Chapter 1, the average annual wage for all primary, secondary, and special education school teachers (SOC 25-2000) is higher than the national average and in surrounding states. However, the variation among Wyoming counties is substantial. Therefore, a comparison of each Wyoming counties' teaching wages to those of surrounding states and the national average is necessary to assess each county's ability to retain or attract those in teaching occupations.

Table 2-1 is a compilation of data from two online resources: Table 1, which uses OES estimates, and Table 5, which is based on Wyoming Department of Education Contract Files (see http://doe.state.wy.us/LMI/education_costs.htm). The average annual wage for all primary, secondary, and special education school teachers (SOC 25-2000) from OES estimates ($57,805) and WDE contract data ($57,284) differ by $521 (less than 1.0%). The data sources differ due to the standard error of the OES estimates and the contract data source that includes no shows (see Chapter 3). The OES average annual wage was used as the base (first cell) in Table 2-1.

While the following discussion focuses

Table 2-1: **Difference in Average Annual Wage for All Primary, Secondary, and Special Education Teachers (SOC 25-2000) in Wyoming Counties[1] and Surrounding States[2]**

		WY	U.S.	CO	ID	MT	NE	SD	UT
		$57,805	$56,732	$50,937	$47,417	$43,561	$46,763	$39,615	$48,080
Albany County	**$51,876**	**-$5,929**	**-$4,856**	$939	$4,459	$8,315	$5,113	$12,261	$3,796
Big Horn County	**$53,512**	**-$4,293**	**-$3,220**	$2,575	$6,095	$9,951	$6,749	$13,897	$5,432
Campbell County	**$61,206**	$3,401	$4,474	$10,269	$13,789	$17,645	$14,443	$21,591	$13,126
Carbon County	**$53,822**	**-$3,983**	**-$2,910**	$2,885	$6,405	$10,261	$7,059	$14,207	$5,742
Converse County	**$54,495**	**-$3,310**	**-$2,237**	$3,558	$7,078	$10,934	$7,732	$14,880	$6,415
Crook County	**$52,764**	**-$5,041**	**-$3,968**	$1,827	$5,347	$9,203	$6,001	$13,149	$4,684
Fremont County	**$55,609**	**-$2,196**	**-$1,123**	$4,672	$8,192	$12,048	$8,846	$15,994	$7,529
Goshen County	**$56,980**	**-$825**	$248	$6,043	$9,563	$13,419	$10,217	$17,365	$8,900
Hot Springs County	**$53,399**	**-$4,406**	**-$3,333**	$2,462	$5,982	$9,838	$6,636	$13,784	$5,319
Johnson County	**$54,463**	**-$3,342**	**-$2,269**	$3,526	$7,046	$10,902	$7,700	$14,848	$6,383
Laramie County	**$59,710**	$1,905	$2,978	$8,773	$12,293	$16,149	$12,947	$20,095	$11,630
Lincoln County	**$58,685**	$880	$1,953	$7,748	$11,268	$15,124	$11,922	$19,070	$10,605
Natrona County	**$57,150**	**-$655**	$418	$6,213	$9,733	$13,589	$10,387	$17,535	$9,070
Niobrara County	**$46,012**	**-$11,793**	**-$10,720**	**-$4,925**	**-$1,405**	$2,451	**-$751**	$6,397	**-$2,068**
Park County	**$59,204**	$1,399	$2,472	$8,267	$11,787	$15,643	$12,441	$19,589	$11,124
Platte County	**$52,153**	**-$5,652**	**-$4,579**	$1,216	$4,736	$8,592	$5,390	$12,538	$4,073
Sheridan County	**$58,784**	$979	$2,052	$7,847	$11,367	$15,223	$12,021	$19,169	$10,704
Sublette County	**$59,213**	$1,408	$2,481	$8,276	$11,796	$15,652	$12,450	$19,598	$11,133
Sweetwater County	**$58,331**	$526	$1,599	$7,394	$10,914	$14,770	$11,568	$18,716	$10,251
Teton County	**$63,926**	$6,121	$7,194	$12,989	$16,509	$20,365	$17,163	$24,311	$15,846
Uinta County	**$54,777**	**-$3,028**	**-$1,955**	$3,840	$7,360	$11,216	$8,014	$15,162	$6,697
Washakie County	**$56,715**	**-$1,090**	**-$17**	$5,778	$9,298	$13,154	$9,952	$17,100	$8,635
Weston County	**$53,491**	**-$4,314**	**-$3,241**	$2,554	$6,074	$9,930	$6,728	$13,876	$5,411

[1]Source: Wyoming Department of Education Contract Files.
[2]Source: Occupational Employment Statistics (OES).

on all primary, secondary, and special education school teachers (SOC 25-2000), similar comparisons can be conducted for specialized teaching occupations, such as elementary school teachers, except special education (SOC 25-2021) by using the information provided in Appendix B.

All Wyoming counties had competitive wages compared to surrounding states, with the exception of Niobrara County, which lagged behind Colorado, Idaho, Nebraska, and Utah. In relation to the national average, 13 Wyoming counties were less competitive in terms of nominal wages, while 10 counties paid more than the national average. The three counties that had the highest differences in wages above the national average were Teton ($7,194), Campbell ($4,474), and Laramie ($2,978). The three counties that trailed the national average by the largest margins were Niobrara (-$10,720), Albany (-$4,856), and Platte (-$4,579).

It is important to mention that the data used in this analysis do not account for education and experience, and therefore, the difference in wages across geographic areas are subject to fluctuations by year depending on the demographic composition of teachers within the study area.

Understanding Table 2-2

The information presented in Table 2-2 (see pages 31-33) is similar to Table 1-1, but compares Wyoming's counties to the overall state average. While Table 1-1 was compiled using estimates from the Occupational Employment Statistics (OES), Table 2-2 is based on data in the Wyoming Department of Education Contract Files (WDE 602).

The second column of Table 2-2 shows that in seven of Wyoming's counties, teachers had higher average wages for both comparison years than the state as a whole (Campbell, Laramie, Park, Sheridan, Sublette, Sweetwater, and Teton). Lincoln County was the only county to increase the average wage from being below the statewide average in 2008/09 to being above it in 2010/11. In 2008/09, Goshen and Natrona counties were above the statewide average but fell below the statewide average in 2010/11. The highest average wage was found in Teton County, where the average annual wage for teachers was 7.2% higher than the statewide average in 2008/09 and 11.6% higher in 2010/11.

In contrast, the lowest average wage was found in Niobrara County. In 2008/09, the average annual wage for teachers was 8.9% lower than the statewide average. In 2010/11 the average wage for teachers in Niobrara County was 19.7% lower than the statewide average.

No county experienced a decrease in both employment and average wages. Nine counties had either an increase or decrease in employment or average wages, while 14 counties experienced increases in both.

Wage Change, 2008/09 to 2010/11

A summary table of all primary, secondary, and special education teachers (SOC 25-2000) for each county is presented in Table 2-2 (see pages 31-33), which is taken from Appendix B. This summary table is similar to those introduced in Chapter 1. This summary table shows the change in employment and average annual wage for each county, and how each

(Text continued on page 34)

Table 2-2: Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11

This group is a composite of all teachers involved in direct instruction in the classroom.

Wyoming

Employment

2008-09	2010-11	Change	%	
7,156	7,344	188	2.6%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$55,784	$57,284	$1,500	2.7%	↑

The average annual wage for teachers in most counties in Wyoming increased from 2008-09 to 2010-11, with two exceptions: Hot Springs (-1.8%) and Niobrara (-9.4%). Teachers in Campbell ($61,206), Laramie ($59,710), Lincoln ($58,685), Park ($59,204), Sheridan ($58,784), Sublette ($59,213), Sweetwater ($58,331), and Teton ($63,926) counties were paid a higher annual wage than the statewide average ($57,284) in 2010-11.

Albany County

Employment

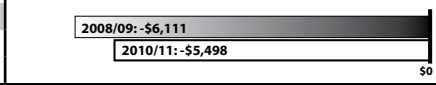
2008-09	2010-11	Change	%	
331	347	16	4.8%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$49,673	$51,786	$2,113	4.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$6,111	-11.0%	-$5,498	-9.6%



Big Horn County

Employment

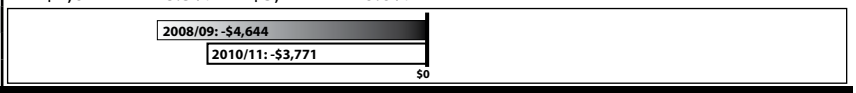
2008-09	2010-11	Change	%	
210	208	-2	-1.0%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$51,140	$53,512	$2,372	4.6%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,644	-8.3%	-$3,771	-6.6%



Campbell County

Employment

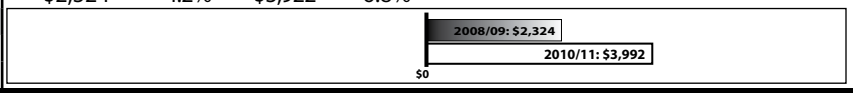
2008-09	2010-11	Change	%	
613	655	42	6.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$58,108	$61,206	$3,098	5.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$2,324	4.2%	$3,922	6.8%



Carbon County

Employment

2008-09	2010-11	Change	%	
242	240	-2	-0.8%	↓

Average Annual Wage

2009	2011	Change	%	
$49,923	$53,822	$3,899	7.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$5,861	-10.5%	-$3,461	-6.0%

Converse County

Employment

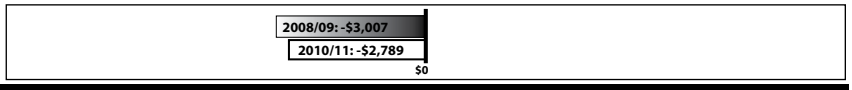
2008-09	2010-11	Change	%	
216	215	-1	-0.5%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$52,777	$54,495	$1,718	3.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,007	-5.4%	-$2,789	-4.9%



Crook County

Employment

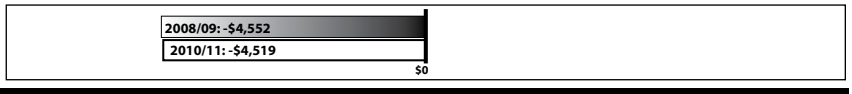
2008-09	2010-11	Change	%	
102	105	3	2.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$51,232	$52,764	$1,532	3.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,552	-8.2%	-$4,519	-7.9%



Fremont County

Employment

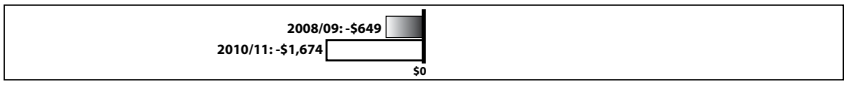
2008-09	2010-11	Change	%	
568	564	-4	-0.7%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,135	$55,609	$474	0.9%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$649	-1.2%	-$1,674	-2.9%



Source: WY Department of Education Contract Files.

Table 2-2: Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11 (continued)

This group is a composite of all teachers involved in direct instruction in the classroom.

Goshen County

Employment

2008-09	2010-11	Change	%	
161	171	10	6.2%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$55,825	$56,980	$1,155	2.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$41	0.1%	-$304	-0.5%

Hot Springs County

Employment

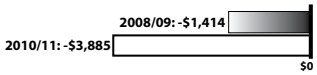
2008-09	2010-11	Change	%	
59	66	7	11.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$54,370	$53,399	-$971	-1.8%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,414	-2.5%	-$3,885	-6.8%



Johnson County

Employment

2008-09	2010-11	Change	%	
118	121	3	2.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$52,259	$54,463	$2,204	4.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,525	-6.3%	-$2,820	-4.9%

Laramie County

Employment

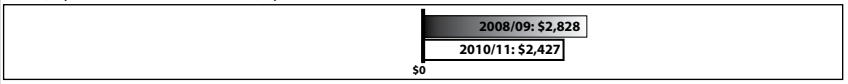
2008-09	2010-11	Change	%	
1,082	1,087	5	0.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$58,612	$59,710	$1,098	1.9%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$2,828	5.1%	$2,427	4.2%



Lincoln County

Employment

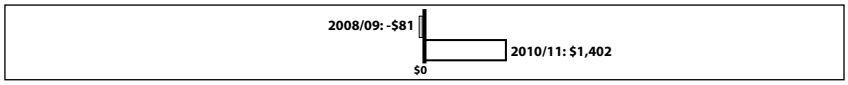
2008-09	2010-11	Change	%	
252	244	-8	-3.2%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,703	$58,685	$2,982	5.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$81	-0.1%	$1,402	2.4%



Natrona County

Employment

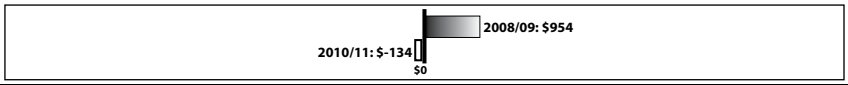
2008-09	2010-11	Change	%	
841	879	38	4.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$56,738	$57,150	$412	0.7%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$954	1.7%	-$134	-0.2%



Niobrara County

Employment

2008-09	2010-11	Change	%	
37	59	22	59.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$50,799	$46,012	-$4,787	-9.4%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,985	-8.9%	-$11,271	-19.7%

Park County

Employment

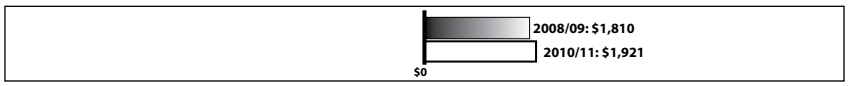
2008-09	2010-11	Change	%	
314	323	9	2.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$57,594	$59,204	$1,610	2.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$1,810	3.2%	$1,921	3.4%



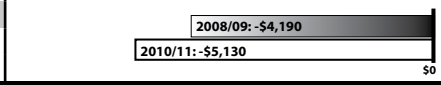
Source: WY Department of Education Contract Files.

Table 2-2: Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11 (continued)

This group is a composite of all teachers involved in direct instruction in the classroom.

Platte County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
151	143	-8	-5.3%	↓	-$4,190	-7.5%	-$5,130	-9.0%
Average Annual Wage								
2008-09	2010-11	Change	%					
$51,594	$52,153	$559	1.1%	↑				

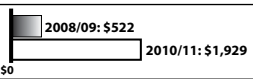


Sheridan County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
377	371	-6	-1.6%	↓	$2,195	3.9%	$1,500	2.6%
Average Annual Wage								
2008-09	2010-11	Change	%					
$57,979	$58,784	$805	1.4%	↑				

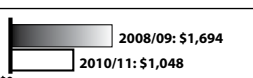
Sublette County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
130	140	10	7.7%	↑	$522	0.9%	$1,929	3.4%
Average Annual Wage								
2008-09	2010-11	Change	%					
$56,306	$59,213	$2,907	5.2%	↑				



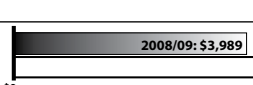
Sweetwater County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
563	589	26	4.6%	↑	$1,694	3.0%	$1,048	1.8%
Average Annual Wage								
2008-09	2010-11	Change	%					
$57,478	$58,331	$853	1.5%	↑				



Teton County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
204	220	16	7.8%	↑	$3,989	7.2%	$6,642	11.6%
Average Annual Wage								
2008-09	2010-11	Change	%					
$59,773	$63,926	$4,153	6.9%	↑				



Uinta County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
359	362	3	0.8%	↑	-$1,715	-3.1%	-$2,506	-4.4%
Average Annual Wage								
2008-09	2010-11	Change	%					
$54,069	$54,777	$708	1.3%	↑				

Washakie County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
125	134	9	7.2%	↑	-$927	-1.7%	-$569	-1.0%
Average Annual Wage								
2008-09	2010-11	Change	%					
$54,857	$56,715	$1,858	3.4%	↑				

Weston County

Employment					Comparison to Wyoming Wage			
2008-09	2010-11	Change	%		2008-09	%	2010-11	%
101	101	0	0.0%	--	-$5,385	-9.7%	-$3,792	-6.6%
Average Annual Wage								
2008-09	2010-11	Change	%					
$50,399	$53,491	$3,205	6.4%	↑				

Source: WY Department of Education Contract Files.

(Text continued from page 30)

county's average annual wage compared to the statewide average.

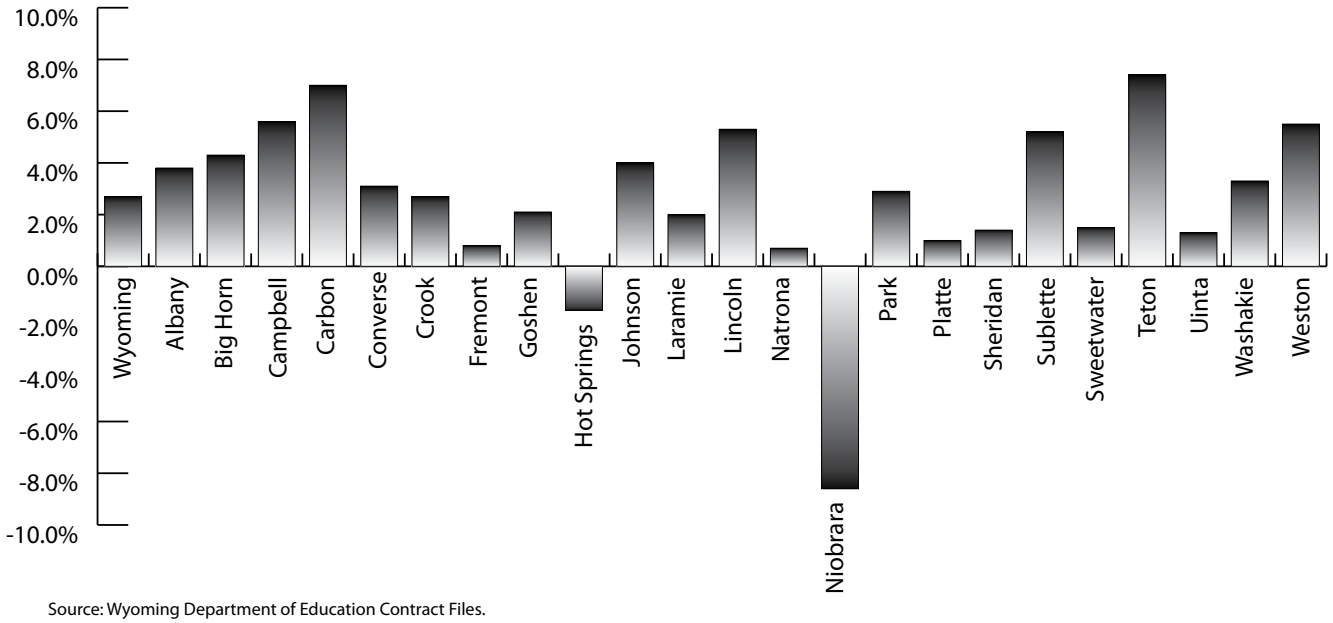
According to WDE 602 data, the statewide average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) in Wyoming increased from $55,784 2008/09 to $57,284 in 2010/11 (see Table 2-2). This is an increase of 2.7%, compared to a 3.0% rate of change from OES.

The average annual wage for teachers increased in most counties during this period, but decreased in Niobrara County and, to a lesser extent, Hot Springs County. The decrease in wages in Niobrara County was substantial, with a decrease of $4,787, or -9.4%.

It is important to realize that the same group of teachers were likely not in both sets of contract data. In the case of Niobrara County, the total number of contracted teachers increased from 37 in 2008/09 to 59 in 2010/11. Because of this change in employment – and the overall low number of teachers in Niobrara County – it is possible that the 22 new positions added were filled at a lower wage, thus decreasing the annual average wage for the county. This is one example of many factors that influence the average wage of a county.

Commuting

It is important to note that an individual who works in a particular county may not reside in that county, or even in Wyoming. It appears that higher wages, as noted in another study of



Source: Wyoming Department of Education Contract Files.

Figure 2-2: **Percentage Change in Average Annual Wage for All Primary, Secondary, and Special Education School Teachers (SOC 25-2000) in Public Schools (NAICS 611100) in Wyoming by County, 2008/09 to 2010/11**

Wyoming workers by Research & Planning (*Health Care Workforce Needs in Wyoming: Advancing the Study*, 2011) may be associated with more extensive commuting. For the 2010/11 school year, of all contracted employees statewide, 9.8% commuted to their place of work either from another county or from out of state (see Table 2-3). Among contracted teachers, 10.7% commuted from another county or state.

Three counties had more than 20.0% of employees in all occupations in public schools commuting to work from outside the county: Hot Springs, Niobrara, and Teton. Interestingly, Niobrara and Teton counties occupy opposite ends of the wage spectrum, as wages in teaching occupations are often highest in Teton and lowest in Niobrara. Natrona County had the smallest percentage of workers commuting from outside the county (3.5%).

Four counties (Big Horn, Crook, Hot Springs, and Niobrara) had more than 20.0% of contracted teachers commuting from outside the county. Niobrara had the highest percentage of teachers commuting from outside

Table 2-3: **Commuting Patterns for All Occupations and Teachers in Public Schools in Wyoming, 2010/11**

Total, All Occupations in Public Schools in Wyoming

County of Employment	Contract Emp.	Intracounty Workers		Intercounty and Interstate Commuters			
		N	%	Intercounty Commuters	Interstate Commuters	Total	%
Albany	853	732	85.8	56	65	121	14.2
Big Horn	509	419	82.3	75	15	90	17.7
Campbell	1,717	1,532	89.2	111	74	185	10.8
Carbon	594	527	88.7	36	31	67	11.3
Converse	532	483	90.8	36	13	49	9.2
Crook	265	229	86.4	30	6	36	13.6
Fremont	1,484	1,377	92.8	55	52	107	7.2
Goshen	448	361	80.6	24	63	87	19.4
Hot Springs	206	156	75.7	17	33	50	24.3
Johnson	302	280	92.7	13	9	22	7.3
Laramie	2,475	2,302	93.0	83	90	173	7.0
Lincoln	663	623	94.0	29	11	40	6.0
Natrona	2,227	2,148	96.5	66	13	79	3.5
Niobrara	117	86	73.5	28	3	31	26.5
Park	842	781	92.8	37	24	61	7.2
Platte	371	340	91.6	23	8	31	8.4
Sheridan	912	820	89.9	53	39	92	10.1
Sublette	347	291	83.9	41	15	56	16.1
Sweetwater	1,538	1,421	92.4	81	36	117	7.6
Teton	518	385	74.3	39	94	133	25.7
Uinta	898	807	89.9	64	27	91	10.1
Washakie	366	311	85.0	25	30	55	15.0
Weston	254	229	90.2	22	3	25	9.8
Total	**18,438**	**16,640**	**90.2**	**1,044**	**754**	**1,798**	**9.8**

Total, All Teachers in Public Schools in Wyoming

County of Employment	Contract Emp.	Intracounty Workers		Intercounty and Interstate Commuters			
		N	%	Intercounty Commuters	Interstate Commuters	Total	%
Albany	347	299	86.2	18	30	48	13.8
Big Horn	208	159	76.4	48	1	49	23.6
Campbell	655	578	88.2	57	20	77	11.8
Carbon	240	205	85.4	29	6	35	14.6
Converse	215	194	90.2	18	3	21	9.8
Crook	105	80	76.2	24	1	25	23.8
Fremont	564	516	91.5	39	9	48	8.5
Goshen	171	142	83.0	16	13	29	17.0
Hot Springs	66	51	77.3	8	7	15	22.7
Johnson	121	115	95.0	6	0	6	5.0
Laramie	1,087	1,011	93.0	41	35	76	7.0
Lincoln	244	228	93.4	15	1	16	6.6
Natrona	879	836	95.1	38	5	43	4.9
Niobrara	59	35	59.3	24	0	24	40.7
Park	323	304	94.1	13	6	19	5.9
Platte	143	130	90.9	13	0	13	9.1
Sheridan	371	332	89.5	31	8	39	10.5
Sublette	140	120	85.7	18	2	20	14.3
Sweetwater	589	527	89.5	56	6	62	10.5
Teton	221	183	82.8	18	20	38	17.2
Uinta	362	316	87.3	43	3	46	12.7
Washakie	134	111	82.8	14	9	23	17.2
Weston	101	90	89.1	11	0	11	10.9
Total	**7,345**	**6,562**	**89.3**	**598**	**185**	**783**	**10.7**

the county (40.7%), while Natrona County had the lowest (4.9%). Eight counties had less than 10.0% of their teachers commuting to work from outside the county.

Among all contracted employees, three counties had more than 10.0% of their workers commute from outside the state: Goshen, Hot Springs, and Teton. As expected, non-border counties tended to have smaller proportions of out-of-state commuters, with Natrona County having the lowest rate (0.6%).

The percentage of contracted teachers commuting from outside the state was generally lower than for all occupations in public schools. Johnson, Niobrara, Platte, and Weston counties had no contracted teachers commuting from outside the state.

More information on commuting is available online at http://doe.state.wy.us/LMI/commute.htm. This commuting analysis does not detect telecommuting.

Research & Planning
Wyoming DWS

Chapter 3: Local Turnover

by: Tony Glover, Workforce Information Supervisor

People change employers for many reasons, including family-based decisions (care for young children, elderly parents, or to relocate with a spouse), personal reasons (the chosen profession is no longer desirable because of schedules, work environment, workplace safety, or retirement), and financial reasons (promotion and/or wage progression; LSO, 2000). While this chapter cannot identify all relevant specific reasons persons employed in Wyoming's public schools choose to change employers, it does offer insight into those changes and shows where a large portion of individuals that left landed with respect to state, industry, and wages. It is hypothesized that individuals leaving a job with higher wages for a job paying less is likely due to family-based and personal reasons. Further, individuals who left a job paying less to acquire a job paying more left for financial incentives, such as wage progression or promotion.

It is accepted that the education and skills acquired by teachers have several applications to occupations other than teaching and industries other than public schools.

However, Chapter 1 showed that Wyoming pays its teachers more than bordering states and Chapter 2 demonstrated the large variation in teacher pay within Wyoming. The primary function of this chapter is to focus on individuals leaving school district employment for another school district, another industry, or another state.

It is assumed that the large investment in teachers' human capital (education, training, and experience) towards the specific occupation of teaching in schools limits their market to teaching in schools. Non-teaching occupations occurring in public schools have a larger number of market opportunities. As pointed out in previous chapters, computer specialists (SOC 15-1000) and health diagnosing and treating practitioners (SOC 29-1000) are both paid higher wages in the private sector in Wyoming and, in most cases, higher wages in the private sector in other states.

Much of the previous work in this publication is focused on all primary, secondary, and special education school teachers (SOC 25-2000) and touched briefly on the numerous other occupations found in Wyoming's public schools. The focus on teachers was based on specific requests from the Legislative Service Office (LSO), and the non-teaching occupations were used for illustrative purposes. This chapter categorizes public school contracts from the Wyoming Department of Education database (WDE 602) into two occupational groups and four retention statuses, and presents findings on the destination industries and states of work for those who left public school employment. The first occupational group is all contracts for all occupations (including teachers) and the second is primary, secondary, and special education school teachers (SOC 25-2000) only. The four retention statuses are defined below.

1. Retained – Contracted staff who also had Unemployment Insurance (UI) reported wages in the fourth quarter of the contract year and which renewed a contract with the same school district the following year.

2. No Shows – Contracted individuals who did not have Unemployment Insurance wages in the fourth quarter of the contract year.

3. Exits - Contracted individuals with Unemployment Insurance wages in the fourth quarter of the contract year who did not renew a contract with the same school district in the following year.

4. Leavers – The total of no shows and exits.

Methodology

As noted above, the Wyoming Department of Education District Contract Files (WDE 602) were combined with other administrative databases maintained by Research & Planning (R&P). The first of these is UI Wage Records collected quarterly for unemployment insurance tax purposes which contain social security number, year, quarter, employer, and wages. R&P currently maintains 22 years of wage records by quarter for Wyoming and 12 years of the same data for Colorado, Utah, Idaho, Montana, South Dakota, Nebraska, Texas, Alaska, New Mexico, and Oklahoma. The data are combined with a third administrative database, the Quarterly Census of Employment and Wages (QCEW), also collected for UI tax administration, which has detailed information about the industry, ownership, and other characteristics of the employers found in wage records. When combined, the resulting data set allows R&P to determine the who (SSN & UI account), what (earnings), when (temporally across 20 years), and where (UI accounts are geocoded) for approximately 92.0% of the employed individuals in Wyoming.

Most administrative data sets are collected for operational purposes and have little oversight or enforcement rules on the quality or completeness of the data. While working with the WDE 602 Staffing File, it became apparent that many of the birth dates listed did not agree with what was found on the Department of Motor Vehicles (DMV) Drivers' License database. When there was discord between the WDE Staffing File and the DMV, the DMV took precedence.

The WDE Contract File (WDE 602), Wage Records, QCEW, and Department of Motor Vehicles driver's license databases were combined to create a table similar to the hypothetical example found in Table 3-1. From left to right, the SSN is found in the WDE Staffing File, Wage Records, and DMV databases and creates the main linking variable between data sets. The school year is defined in terms of a typical school year cycle. For example, 2010/11 is used for the period of July 1, 2010 to June 30, 2011. As wage records are collected quarterly, the 2010/11 school year corresponds to 2010Q3, 2010Q4, 2011Q1, and 2011Q2. The staff ID is the primary linkage mechanism between the WDE Staffing File and signifies whether the individual was contracted in the WDE Staffing File. The Standard Occupational Classification (SOC) code is assigned by R&P staff trained by the U.S. Bureau of Labor Statistics that manages the Occupational Employment Statistics (OES) survey. This assignment was based on the WDE Contract File (WDE 602) assignment code and highest grade with which the contracted individual has contact. The district ID, district, district wages, and experience are also present on the WDE Staffing File. The age was included by subtracting the year of birth (DMV) from the school year (WDE 602). The primary

state, primary industry, and primary county represent the state, county, and industry for which the individual had the highest wages in the four-quarter period. Lastly, total wage is the individual's total wages for all employers during the four-quarter period.

Table 3-1 shows that the individual named Hypothetical Pat with the SSN of 999999999 was employed by the Natrona County School District from the 2007/08 school year until the 2010/11 school year. During this time, Pat showed wage progression from 2007/08 to 2009/10, at which point Pat's wages remained relatively flat for two consecutive school years. Between the 2010/11 and 2011/12 school years, Hypothetical Pat decided to leave employment as a teacher (SOC 25-2031) with the Natrona County School District and work in Campbell County in the natural resources and mining industry. Based on our definitions outlined on pages 37 and 38, Hypothetical Pat was an exit from public school employment in 2010/11. In this example, the career transition appears to have been financial in nature (this does not rule out other explanations) as Pat's wages increased from $55,968 to $75,284 per year, a gain of $19,316.

Results

As stated at the begining of this chapter, the public school contracts were divided into four distinct retention statuses: retained (next year), no shows (for the current year), exits (those that leave the district by the next year), and leavers (no show or exit), as well as two occupational groups: all occupations and teachers (SOC 25-2000). The summary results appear in Table 3-2 (see page 40). The leavers column includes N (number of leavers), contracted average wage (from the district staffing file),

(Text continued on page 41)

Table 3-1: **Hypothetical Record Structure of Linked Administrative Databases**

Staffing File Matched to Wage Records		Contract File (WDE 602)						Driver's License	QCEW[b] Matched to Wage Records			
Social Security Number	School Year	Staff ID	SOC[a] Code	District ID	School District	District Wages	Experience (in Years)	Age	Primary State of Residence	Primary Industry	County	Total Wages
999999999	2007/08	8888888	25-2031	1301000	Natrona County School District #1	$39,967	15	35	WY	09a- Public Schools	Natrona County	$39,967
999999999	2008/09	8888888	25-2031	1301000	Natrona County School District #1	$45,526	16	36	WY	09a- Public Schools	Natrona County	$45,526
999999999	2009/10	8888888	25-2031	1301000	Natrona County School District #1	$55,968	17	37	WY	09a- Public Schools	Natrona County	$55,968
999999999	2010/11	8888888	25-2031	1301000	Natrona County School District #1	$55,968	18	38	WY	09a- Public Schools	Natrona County	$55,968
999999999	2011/12							39	WY	01- Natural Rescources & Mining (11, 21)	Campbell County	$75,284

This record structure has 90,360 records in the actual analysis table.

[a]Standard Occupational Classification.

[b]Quarterly Census of Employment and Wages.

Table 3-2a: **Wyoming Public School Contracts for All Occupations by Contracted Individuals' Retention Status, 2007/08 to 2011/12**

School Year	Age Group	Contracts N	Contracts Contract Annual Wage	Retained N	Retained Average Annual Wage	No Shows N	No Shows Average Annual Wage	Exits N	Exits Average Annual Wage	Leavers N	Leavers Average Annual Wage	%
2007/08	Total	17,054	$39,973	14,695	$41,576	566	$14,594	1,793	$34,843	2,359	$29,985	13.8%
	20-34	3,193	$34,660	2,491	$37,928	204	$12,636	498	$27,330	702	$23,060	22.0%
	35-44	9,427	$41,014	8,459	$42,573	262	$14,969	706	$31,996	968	$27,388	10.3%
	55+	4,434	$41,585	3,745	$41,750	100	$17,605	589	$44,608	689	$40,689	15.5%
2008/09	Total	17,460	$41,349	15,452	$42,793	578	$15,493	1,430	$36,203	2,008	$30,242	11.5%
	20-34	3,465	$36,508	2,823	$39,383	230	$15,634	412	$28,464	642	$23,868	18.5%
	35-44	9,284	$42,437	8,528	$43,772	253	$14,413	503	$33,907	756	$27,383	8.1%
	55+	4,711	$42,766	4,101	$43,105	95	$18,031	515	$44,636	610	$40,492	12.9%
2009/10	Total	18,325	$41,803	15,802	$43,558	869	$20,299	1,654	$36,337	2,523	$30,813	13.8%
	20-34	3,806	$36,889	3,008	$40,384	309	$16,127	489	$28,509	798	$23,715	21.0%
	35-44	9,514	$43,051	8,553	$44,791	398	$21,278	563	$32,000	961	$27,560	10.1%
	55+	5,005	$43,170	4,241	$43,323	162	$25,851	602	$46,752	764	$42,320	15.3%
2010/11	Total	18,435	$41,991	15,354	$44,472	1,235	$19,582	1,846	$36,351	3,081	$29,629	16.7%
	20-34	3,835	$37,266	2,937	$41,529	378	$16,179	520	$28,513	898	$23,321	23.4%
	35-44	9,448	$43,266	8,216	$45,724	584	$19,680	648	$33,360	1,232	$26,875	13.0%
	55+	5,152	$43,171	4,201	$44,080	273	$24,083	678	$45,222	951	$39,154	18.5%
2011/12	Total	18,315	$42,817									
	20-34	3,858	$38,540									
	35-44	9,239	$44,182									
	55+	5,218	$43,563									

Table 3-2b: **Wyoming Public School Contracts for All Primary, Secondary, and Special Education Teachers (SOC 25-2000) by Contracted Individuals' Retention Status, 2007/08 to 2011/12**

School Year	Age Group	Contracts N	Contracts Contract Annual Wage	Retained N	Retained Average Annual Wage	No Shows N	No Shows Average Annual Wage	Exits N	Exits Average Annual Wage	Leavers N	Leavers Average Annual Wage	%
2007/08	Total	7,065	$54,322	6,432	$54,289	54	$41,472	579	$52,667	633	$51,053	9.0%
	20-34	1,705	$46,762	1,515	$46,253	25	$40,000	165	$43,724	190	$43,596	11.1%
	35-44	3,864	$55,585	3,654	$55,835	26	$40,068	184	$51,755	210	$50,093	5.4%
	55+	1,496	$58,685	1,263	$59,456	3	$65,908	230	$59,814	233	$59,134	15.6%
2008/09	Total	7,156	$56,170	6,629	$56,035	64	$43,935	463	$53,830	527	$52,015	7.4%
	20-34	1,874	$48,491	1,680	$48,090	42	$39,355	152	$46,061	194	$44,795	10.4%
	35-44	3,745	$57,851	3,595	$57,776	16	$48,378	134	$53,331	150	$52,576	4.0%
	55+	1,537	$60,371	1,354	$61,272	6	$64,152	177	$60,879	183	$60,173	11.9%
2009/10	Total	7,361	$57,320	6,686	$57,351	137	$47,360	538	$54,355	675	$52,470	9.2%
	20-34	1,995	$49,585	1,764	$49,497	54	$41,004	177	$46,486	231	$45,377	11.6%
	35-44	3,783	$59,047	3,571	$59,253	58	$49,999	154	$52,259	212	$51,476	5.6%
	55+	1,583	$61,581	1,351	$62,578	25	$54,968	207	$62,642	232	$61,491	14.7%
2010/11	Total	7,344	$57,718	6,628	$57,640	129	$46,689	587	$55,499	716	$53,467	9.7%
	20-34	1,998	$50,322	1,769	$49,898	54	$41,411	175	$47,651	229	$46,485	11.5%
	35-44	3,744	$59,292	3,509	$59,440	51	$48,655	184	$52,879	235	$51,893	6.3%
	55+	1,602	$62,214	1,350	$63,107	24	$54,389	228	$63,638	252	$62,078	15.7%
2011/12	Total	7,377	$58,879									
	20-34	2,086	$51,239									
	35-44	3,682	$60,652									
	55+	1,609	$63,094									

(Text continued from page 23)

and the percentage of all contracted individuals that leave. The percent represents a replacement rate that would need to be met to maintain the same level of employment across school districts. Table 3-2a shows that across all occupations, the replacement rate of contracted individuals that leave ranges from 11.5% in 2008/09 to 16.7% in 2010/11. The total replacement rate for teachers is lower, ranging between 7.4% in 2008/09 and 9.7% in 2010/11. Provided that demand remains constant, or increases, leavers represent a recruitment cost.

Table 3-2 also shows exit rates for three age groups: 20-34, 35-54, and 55+ by school year. Previous research (Robinson & Strunk, 2006) states, "This research points to a U-shaped curve of teacher experience and quits: Younger teachers have a higher rate of turnover, which declines as teachers hit middle age/experience, and then rises again as teachers near retirement."

Combined data of teachers that left for the 2007/08 to 2010/11 school years were aggregated by the age of the leaver in the year of departure to create Figure 3-1. The U-shaped curve described by Robinson & Strunk is apparent and was used to define

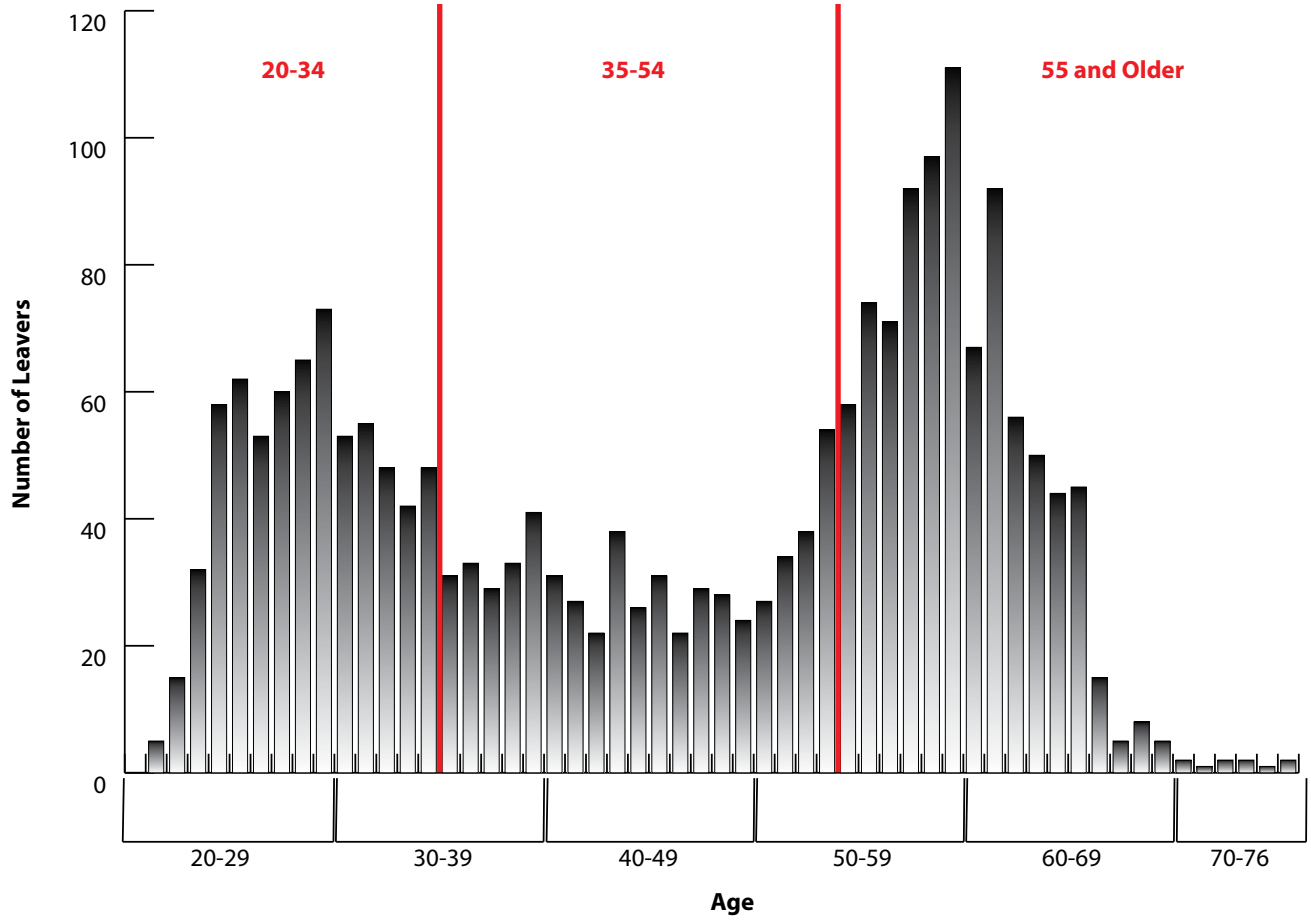


Figure 3-1: **School District Teacher Leavers by Age in Year of Departure from 2007/08 to 2010/11**

the age group boundaries that appear in Table 3-2b. The importance of these distinct age groups lays in the motivation of the individuals that leave and the type of resource that needs to be replaced. As suggested in the introduction, young people may leave due to factors such as child care, workplace environment, and other financial reasons, and older individuals may be more likely to retire.

As discussed in Chapter 2, there is wage variance within Wyoming between counties. A contracted individual moving from Converse County to Natrona County would qualify as a district leaver under the current definition. Tables 3-3a and 3-3b were created by combining two school years of data to eliminate issues related to low counts and confidentiality. For these same reasons, the no shows and exits columns do not appear. As can be seen in Table 3-3a, the top three counties with the greatest replacement need for all occupations are Hot Springs (30.2%), Goshen (29.1%), and Teton (25.0%) counties, and the lowest three are Laramie (8.9%), Natrona (10.0%), and Uinta (11.8%) counties. For teachers (Table 3-3b), the greatest replacement needs are in Hot Springs (26.1%), Goshen (21.2%), and Albany (17.7%) counties and the lowest are Laramie (5.7%), Uinta (6.9%), and Natrona (7.0%) counties.

Data to this point have shown who the leavers are by school year and age group and the counties from which they leave. Using the same two years of data presented

Table 3-3a: **Public School Contracts for All Occupations by Districts' County and Contracted Individuals' Retention Status for Combined 2009/10 & 2010/11**

	Contracts		Retained		Exits		Leavers		
County	N	Contract Annual Wage	N	Average Annual Wage	N	Average Annual Wage	N	Average Annual Wage	%
Total	**36,760**	**$41,898**	**31,156**	**$44,008**	**3,500**	**$36,345**	**5,604**	**$30,162**	**15.2%**
01-Albany County	1,697	$36,725	1,293	$40,232	245	$27,105	404	$25,502	23.8%
02-Big Horn County	1,017	$39,278	861	$41,997	93	$35,151	156	$24,273	15.3%
03-Campbell County	3,375	$44,170	2,683	$48,640	256	$38,844	692	$26,837	20.5%
04-Carbon County	1,168	$38,421	954	$41,091	111	$35,546	214	$26,519	18.3%
05-Converse County	1,069	$39,107	915	$40,499	120	$35,273	154	$30,841	14.4%
06-Crook County	526	$37,277	453	$39,757	43	$33,121	73	$21,889	13.9%
07-Fremont County	2,956	$43,205	2,482	$44,450	375	$41,374	474	$36,686	16.0%
08-Goshen County	900	$40,371	638	$42,349	80	$37,007	262	$35,554	29.1%
09-Hot Springs County	394	$34,601	275	$38,980	60	$29,012	119	$24,482	30.2%
10-Johnson County	601	$38,638	518	$41,152	57	$30,656	83	$22,950	13.8%
11-Laramie County	4,957	$46,273	4,515	$46,900	363	$43,623	442	$39,867	8.9%
12-Lincoln County	1,357	$37,806	1,136	$40,814	140	$30,853	221	$22,343	16.3%
13-Natrona County	4,474	$43,944	4,026	$44,761	393	$38,731	448	$36,605	10.0%
14-Niobrara County	222	$37,315	194	$39,623	13	$31,030	28	$21,322	12.6%
15-Park County	1,670	$41,766	1,452	$43,971	141	$37,036	218	$27,080	13.1%
16-Platte County	744	$33,665	623	$36,682	77	$25,359	121	$18,133	16.3%
17-Sheridan County	1,813	$41,942	1,517	$44,668	175	$33,971	296	$27,970	16.3%
18-Sublette County	688	$43,239	561	$45,490	101	$38,107	127	$33,294	18.5%
19-Sweetwater County	3,068	$41,010	2,674	$42,673	305	$35,047	394	$29,721	12.8%
20-Teton County	1,030	$49,991	773	$54,004	98	$44,361	257	$37,920	25.0%
21-Uinta County	1,794	$39,654	1,582	$41,664	141	$31,118	212	$24,654	11.8%
22-Washakie County	726	$37,375	596	$39,148	52	$32,093	130	$29,245	17.9%
23-Weston County	514	$38,694	435	$40,709	61	$31,893	79	$27,599	15.4%

in Tables 3-3a and 3-3b, Table 3-4 (see pages 44 and 45) is comprised of all of the leavers from 2009/10 and 2010/11 combined. At first glance it can be seen that even though we have aggregated two school years of data, there remain numerous cells in Table 3-4 that are not disclosable (ND) due to confidentiality. To better understand Table 3-4, Hypothetical Pat from Table 3-1 is one of the 56 individuals who left public school to work in natural resources and mining and would appear in the blue shaded cells of Table 3-4. We know Pat was a 38-year-old and left employment in a public school in 2010/11, and in 2011/12 Pat was working in the natural resources and mining industry. We also know Pat was a teacher based upon his or her SOC Code (25-2031) while contracted with Natrona County School District. Therefore, Pat would be captured as one of the 5 individuals in the teacher panel of Table 3-4b as well.

The first thing to note in Table 3-4 is that the largest destination state and industry of both all occupations (2,135) and teachers (633) is the same industry they left: public schools in Wyoming. Recall that the definition of a leaver is predicated on the fact that the individual no longer contracts with the same school district. Therefore the destination of choice for individuals leaving a contract with a public school is another public school. The second largest destination in Table 3-4 is designated as unknown,

(Text continued on page 46)

Table 3-3b: **Public School Contracts for All Primary, Secondary, and Special Education Teachers (SOC 25-2000) by Districts' County and Contracted Individuals' Retention Status for Combined 2009/10 & 2010/11**

	Contracts		Retained		Exits		Leavers		
County	N	Contract Annual Wage	N	Average Annual Wage	N	Average Annual Wage	N	Average Annual Wage	%
Total	**14,705**	**$57,111**	**13,314**	**$57,495**	**1,125**	**$54,952**	**1,391**	**$53,438**	**9.5%**
01-Albany County	689	$51,025	567	$52,388	66	$49,612	122	$44,695	17.7%
02-Big Horn County	417	$53,319	376	$53,744	40	$49,519	41	$49,415	9.8%
03-Campbell County	1,295	$61,060	1,198	$61,473	73	$58,924	97	$55,955	7.5%
04-Carbon County	483	$52,936	416	$53,253	50	$50,163	67	$50,969	13.9%
05-Converse County	431	$54,528	389	$54,527	39	$53,653	42	$54,534	9.7%
06-Crook County	208	$53,077	191	$53,456	17	$48,816	17	$48,816	8.2%
07-Fremont County	1,139	$55,355	1,016	$55,502	116	$53,855	123	$54,139	10.8%
08-Goshen County	340	$57,033	268	$58,354	28	$52,197	72	$52,117	21.2%
09-Hot Springs County	134	$53,007	99	$54,418	24	$49,828	35	$49,014	26.1%
10-Johnson County	243	$53,588	220	$54,270	22	$47,324	23	$47,069	9.5%
11-Laramie County	2,185	$59,784	2,060	$59,914	116	$58,334	125	$57,644	5.7%
12-Lincoln County	498	$58,557	456	$58,685	41	$58,511	42	$57,167	8.4%
13-Natrona County	1,739	$56,866	1,618	$56,977	115	$55,859	121	$55,389	7.0%
14-Niobrara County	112	$45,584	99	$47,457	6	$47,890	13	$31,320	11.6%
15-Park County	640	$59,282	590	$59,538	48	$56,083	50	$56,255	7.8%
16-Platte County	290	$51,847	267	$51,923	23	$50,966	23	$50,966	7.9%
17-Sheridan County	766	$58,518	697	$58,784	48	$59,142	69	$55,829	9.0%
18-Sublette County	275	$59,044	238	$59,483	35	$56,685	37	$56,222	13.5%
19-Sweetwater County	1,182	$58,441	1,088	$58,360	94	$59,379	94	$59,379	8.0%
20-Teton County	446	$63,500	374	$64,722	41	$60,777	72	$57,157	16.1%
21-Uinta County	725	$54,710	675	$55,021	49	$50,665	50	$50,512	6.9%
22-Washakie County	265	$56,728	233	$57,390	10	$60,428	32	$51,910	12.1%
23-Weston County	203	$53,010	179	$53,615	24	$48,499	24	$48,499	11.8%

Table 3-4a: **Public School Contracted Individuals in All Occupations that Leave District Contracts by Destination State and Industry for Combined 2009/10 & 2010/11**

State and Industry	Leavers	Total Contract Average Wage	Total Destination Average Annual Wage	20-34 N	20-34 Destination Average Annual Wage	35-54 N	35-54 Destination Average Annual Wage	55+ N	55+ Destination Average Annual Wage
Total	**5,604**	**$30,162**	**$26,685**	**1,696**	**$25,329**	**2,193**	**$30,270**	**1,715**	**$22,424**
Wyoming	**3,844**	**$27,986**	**$26,701**	**1,226**	**$25,218**	**1,634**	**$30,386**	**984**	**$22,431**
01-Natural Resources & Mining (11, 21)	105	$15,610	$44,882	36	$46,018	56	$45,658	13	$38,396
02-Construction (23)	57	$17,312	$28,773	26	$26,464	25	$32,284	6	$24,149
03-Manufacturing (31, 32, 33)	38	$17,801	$37,092	16	$31,350	15	$46,687	7	$29,654
04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	82	$15,039	$35,670	18	$34,579	48	$37,148	16	$32,462
05-Retail Trade (44, 45)	120	$20,447	$19,460	49	$19,289	48	$20,969	23	$16,672
06-Information (51)	28	$17,730	$22,530	13	$17,629	10	$35,992	5	$8,347
07-Financial Activities (52, 53)	64	$17,796	$25,613	28	$28,903	27	$26,528	9	$12,634
08-Professional & Business Services (54, 55, 56)	100	$21,385	$21,989	35	$25,691	47	$23,087	18	$11,924
09a-Public Schools, Educational Services (6111-3)	2,135	$31,444	$22,552	614	$22,645	854	$25,983	667	$18,074
09b-Educational Services (61)	145	$30,781	$28,170	58	$30,285	61	$31,718	26	$15,127
10-Health Care & Social Assistance (62)	491	$26,293	$32,312	168	$28,804	241	$34,111	82	$34,210
11-Leisure & Hospitality (71, 72)	124	$18,064	$13,862	65	$13,640	40	$15,119	19	$11,972
12-Other Services Except Public Administration (81)	50	$24,601	$22,621	23	$20,362	19	$27,734	8	$16,969
13-Public Administration (92)	304	$29,054	$46,676	77	$35,200	142	$50,346	85	$50,941
14-Nonclassified Industry (99)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other States	**194**	**$32,767**	**$26,368**	**114**	**$26,526**	**63**	**$27,252**	**17**	**$22,032**
01-Natural Resources & Mining (11, 21)	ND	ND	ND	ND	ND	ND	ND	ND	ND
02-Construction (23)	ND	ND	ND	ND	ND	ND	ND	ND	ND
03-Manufacturing (31, 32, 33)	6	$34,814	$25,538	ND	ND	ND	ND	ND	ND
04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	6	$15,701	$14,626	ND	ND	ND	ND	ND	ND
05-Retail Trade (44, 45)	13	$20,553	$13,395	8	$13,129	ND	ND	ND	ND
06-Information (51)	ND	ND	ND	ND	ND	ND	ND	ND	ND
07-Financial Activities (52, 53)	7	$19,403	$77,693	5	$55,238	ND	ND	ND	ND
08-Professional & Business Services (54, 55, 56)	14	$24,857	$21,193	9	$22,210	5	$19,363	ND	ND
09a-Public Schools, Educational Services (6111-3)	69	$38,700	$30,549	39	$32,946	23	$26,956	7	$28,998
09b-Educational Services (61)	31	$41,157	$24,899	15	$25,592	ND	ND	ND	ND
10-Health Care & Social Assistance (62)	17	$22,478	$20,569	12	$18,759	5	$24,912	ND	ND
11-Leisure & Hospitality (71, 72)	12	$31,923	$10,186	7	$11,620	ND	ND	ND	ND
12-Other Services, Except Public Administration (81)	ND	ND	ND	ND	ND	ND	ND	ND	ND
13-Public Administration (92)	8	$38,185	$18,088	ND	ND	ND	ND	ND	ND
14-Nonclassified Industry (99)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Unknown	**1,566**	**$35,183**		**356**		**496**		**714**	

ND = not disclosable.

Table 3-4b: **Public School Contracted for All Primary, Secondary, and Special Education Teachers (SOC 25-2000) that Leave District Contracts by Destination State and Industry for Combined 2009/10 & 2010/11**

State and Industry	Total Leavers	Total Contract Average Wage	Total Destination Average Annual Wage	20-34 N	20-34 Destination Average Annual Wage	35-54 N	35-54 Destination Average Annual Wage	55+ N	55+ Destination Average Annual Wage
Total	**1,391**	**$51,618**	**$32,207**	**364**	**$33,009**	**354**	**$37,794**	**273**	**$23,894**
Wyoming	**916**	**$51,780**	**$32,506**	**319**	**$33,382**	**334**	**$38,406**	**263**	**$23,952**
01-Natural Resources & Mining (11, 21)	11	$46,183	$43,020	ND	ND	5	$48,781	ND	ND
02-Construction (23)	ND	ND	ND	ND	ND	ND	ND	ND	ND
03-Manufacturing (31, 32, 33)	ND	ND	ND	ND	ND	ND	ND	ND	ND
04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	5	$53,875	$33,784	ND	ND	ND	ND	ND	ND
05-Retail Trade (44, 45)	15	$57,084	$15,698	ND	ND	ND	ND	8	$8,639
06-Information (51)	ND	ND	ND	ND	ND	ND	ND	ND	ND
07-Financial Activities (52, 53)	8	$61,448	$10,329	ND	ND	ND	ND	5	$11,293
08-Professional & Business Services (54, 55, 56)	10	$54,343	$15,987	ND	ND	ND	ND	ND	ND
09a-Public Schools, Educational Services (6111-3)	633	$52,387	$32,498	220	$35,010	220	$37,487	193	$23,948
09b-Educational Services (61)	60	$47,299	$28,374	29	$33,846	20	$27,809	11	$14,973
10-Health Care & Social Assistance (62)	92	$46,022	$35,566	30	$32,413	47	$40,416	15	$26,678
11-Leisure & Hospitality (71, 72)	12	$48,973	$14,828	10	$10,946	2	$34,235	ND	ND
12-Other Services Except Public Administration (81)	13	$54,219	$20,732	5	$14,611	4	$33,010	4	$16,107
13-Public Administration (92)	48	$56,976	$52,330	8	$48,023	22	$59,644	18	$45,306
14-Nonclassified Industry (99)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other States	**75**	**$49,635**	**$28,556**	**45**	**$30,363**	**20**	**$27,578**	**10**	**$22,379**
01-Natural Resources & Mining (11, 21)	ND	ND	ND	ND	ND	ND	ND	ND	ND
02-Construction (23)	ND	ND	ND	ND	ND	ND	ND	ND	ND
03-Manufacturing (31, 32, 33)	ND	ND	ND	ND	ND	ND	ND	ND	ND
04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	ND	ND	ND	ND	ND	ND	ND	ND	ND
05-Retail Trade (44, 45)	ND	ND	ND	ND	ND	ND	ND	ND	ND
06-Information (51)	ND	ND	ND	ND	ND	ND	ND	ND	ND
07-Financial Activities (52, 53)	ND	ND	ND	ND	ND	ND	ND	ND	ND
08-Professional & Business Services (54, 55, 56)	ND	ND	ND	ND	ND	ND	ND	ND	ND
09a-Public Schools, Educational Services (6111-3)	40	$47,816	$36,252	27	$37,599	ND	ND	ND	ND
09b-Educational Services (61)	16	$51,280	$24,657	ND	ND	9	$26,252	ND	ND
10-Health Care & Social Assistance (62)	ND	ND	ND	ND	ND	ND	ND	ND	ND
11-Leisure & Hospitality (71, 72)	ND	ND	ND	ND	ND	ND	ND	ND	ND
12-Other Services, Except Public Administration (81)	ND	ND	ND	ND	ND	ND	ND	ND	ND
13-Public Administration (92)	ND	ND	ND	ND	ND	ND	ND	ND	ND
14-Nonclassified Industry (99)	ND	ND	ND	ND	ND	ND	ND	ND	ND
Unknown	**400**								

ND = not disclosable.

(Text continued from page 43)

with 1,566 individuals in all occupations and 400 teachers whose whereabouts are unaccounted for. The individuals could have withdrawn from the labor market due to retirement, to care for children, or moved to a state for which R&P does not capture wages. The third most common destination is health care and social assistance, with 491 individuals in the all occupations category and 92 teachers choosing it as their destination industry. Given that R&P has similar data on all licensed health care professionals, we could track the career path of these individuals to get a better understanding of those who leave public school employment.

Table 3-4 also demonstrates that the individuals who left public schools with a destination industry of public schools always had lower subsequent wages. It is hypothesized that these may be teachers that left a contracted position for some personal reason or retirement and are working on a part-time basis as substitutes or have returned to employment after an absence but not during the contracting period. Further investigation using the Professional Teachers Standards Board (PTSB) data is warranted.

The remainder of Table 3-4 shows that the all occupations group typically loses wages during the transition, but a good number of the transitions resulted in wage gains. For example, the 105 individuals who went into natural resources and mining went from a contracted wage $15,610 per year to a destination wage of $44,882 per year, and the 304 individuals with a destination of public administration in Wyoming went from $29,054 per year to $46,676. Individuals in the all occupations group gained wages in 10 of the 24 transitions.

As demonstrated in Chapter 1, teachers in Wyoming are compensated relatively well in comparison to teachers in bordering states. This holds true when looking at the teachers who left public schools in Wyoming and have a destination state and industry of public schools in another state. Referring to Table 3-4, teachers leaving Wyoming to teach in another state went from $47,816 per year to $36,252 per year. Further exploration of Table 3-4 shows that on average, teachers always lost wages when leaving contracts with Wyoming's public schools, no matter their destination industry.

Lastly, Table 3-5 (see Appendix C) looks at all of the major three-digit SOC occupational groupings by the destination industry of the leavers and wages across the school years 2007/08 to 2010/11. It shows that there is substantial variation in the occupations of those who gain wages and those that lose wages. For example, Table 3-5 confirms that on average, teachers lose wages during the transition, but there are quite a few other occupational groups (in particular those requiring less human capital investment) that gain during the transition.

Conclusions

As stated in the introduction, there are numerous reasons for individuals to change employers. The tables introduced here suggest that in most cases the reason is not for financial gain but may be attributed to other underlying motivations and circumstances.

Future research using administrative

databases to explore other motivation and circumstantial factors influencing individuals to take a pay cut and leave employment with a school district is warranted.

R&P captures data from the Wyoming Department of Health on births, deaths, divorces, and marriages. All or any one of these events could impact career decisions, although death has a certain finality to it. Births data could help determine if teachers who have young children are more likely to leave full-time employment for part-time. Marriages may attach a teacher to a spouse that may not be able to find local career opportunities and divorces may make the teacher want to leave one geographical area for another.

R&P received the Professional Teachers Standards Board (PTSB) data rather late in this project and has not been able to work with the file in detail. Initial discovery shows fully licensed teachers downgrading their license to a substitute teacher certificate level in several cases. This could be retirees attempting to earn extra income or parents who care for young children picking up part-time work, which could explain going from a higher to lower wage. Over the next year we will incorporate the PTSB data in this analysis.

In Chapter 2, R&P presented commuting data to show how many teachers and other occupations commuted across county and state lines. The commuting data is created at the SSN, year, quarter, and employer level, and could be used to see if individuals change districts or industries while trying to shorten their commute travel in some combination with family circumstances mentioned before.

Additionally, R&P has started research using administrative databases to create household (husband, wife, and children) level data which would be of interest to explore the relationship between leavers and their partners. Perhaps, as suggested earlier, the spouse of a school district employee may not be able to find suitable employment in the same geographic location as their public school spouse. Other factors such as economic conditions, employer downsizing, or business closure are likely to impact the family dynamic and choices on whether to stay with the same employer.

Research & Planning
Wyoming DWS

Chapter 4: Impending Retirement Trends

by: Tom Gallagher, Research & Planning Manager

In contrast to the previous chapter, this chapter focuses exclusively on teachers appearing on a district payroll in one year, but not the next (even though they may have gone to another district), and on the age distribution of teachers on district payrolls in the fourth quarter of 2011. A position on the WDE 602 contract file that does not have a corresponding Unemployment Insurance payroll record in the fall of the year may be left unfilled by some school districts and the cost of recruitment avoided. Therefore, this chapter focuses on situations where teacher turnover is most likely to necessitate the cost of recruitment. This chapter also examines the age distribution and the evidence that attaining age 65 as a teacher is also likely to be associated with leaving work in public schools in Wyoming.

An increasingly important part of understanding teacher retention lies in understanding the demographics of the labor pool and, in particular, of incumbent workers. This chapter focuses on the aging of employed teachers in Wyoming, current exits, and identifying areas of the state at the greatest risk of incurring unusually high recruitment expenses as a function of retention difficulties.

Assuming a level to moderate increase in the demand for teachers, district recruitment costs covered 587 teaching positions, or 8.0% of teaching positions (see Table 3-2b, page 40) including district-to-district movement of teachers from the 2010/11 to 2011/12 school year. The analysis of exits from school districts in Table 4-1 is restricted to contract individuals who were also found on district UI payrolls in the 2010/11 school year, hence the term contract employment.

As displayed in Table 3-2b in Chapter 3, the number of exits, and therefore recruitment cost for teachers has been at similar levels since the 2007/2008 school year. The rate of exit for teachers is also similar to the most recently calculated turnover rates for registered nurses and advanced practical nurses (RN/APN) in Wyoming hospitals. The exit rate for RN/APNs stood at a high of 9.3% in third quarter 2010, fell to a low of 7.1% the following quarter, and stood at 8.4% in second quarter of 2011. An analysis of nursing employment in Wyoming is available at http://doe.state.wy.us/LMI/nursing/2012/DASHBOARDS_COMPLETE_FEB2012.pdf.

Table 4-1: **Change in Contract Employment for All Primary, Secondary, & Special Education Teachers (25-2000) in Public Schools in Wyoming, 2010/11 to 2011/12 School Years**

Occupation	Contract Employment, 2010/11	Leavers	Exit Rate
Preschool Teachers, Except Special Education (25-2011)	22	3	13.6%
Kindergarten Teachers, Except Special Education (25-2012)	412	28	6.8%
Elementary School Teachers, Except Special Education (25-2021)	2,159	164	7.6%
Middle School Teachers, Except Special and Vocational Education (25-2022)	1,337	120	9.0%
Vocational Education Teachers, Middle School (25-2023)	47	3	6.4%
Secondary School Teachers, Except Special and Vocational Education (25-2031)	1,991	130	6.5%
Vocational Education Teachers, Secondary School (25-2032)	227	18	7.9%
Special Education Teachers, Kindergarten and Elementary School (25-2052)	346	44	12.7%
Special Education Teachers, Middle School (25-2053)	448	40	8.9%
Special Education Teachers, Secondary School (25-2054)	347	37	10.7%
All Primary, Secondary, & Special Education Teachers (25-2000)	**7,345**	**587**	**8.0%**

Source: Wyoming Department of Education Contract Files.

Analysis of turnover for more occupations comparable to teachers is planned for the future.

It should be noted that turnover rates for special education teachers at the elementary and secondary levels are substantially higher (see Table 4-1), and tracking exits at the detailed level is important.

Turnover rates for teachers and nurses – an occupation similar in many respects to teachers – are quite low in comparison to employment turnover calculated at the industrial level in Wyoming. More information on turnover in Wyoming is available at see http://doe.state.wy.us/LMI/turnover.htm.

Relatively low rates of exit, or turnover, for teachers (as well as other occupations) seem destined to change substantially over the next decade, and these changes likely will begin to appear relatively soon. The oldest of the post war baby boom generation are age 66 and have crossed into territory where the probability of retirement is much greater. For those teaching in Wyoming in the 2011/2012 school year, one in five was 55 years of age or older. However, in some categories of teaching, one in four – and, in some cases, a greater proportion – are at or quickly approaching the traditional retirement age.

Table 4-2 (see page 51) displays the age distribution of teachers on district payrolls during the last school year by teaching category. In contrast to one in five for all teachers, one in four middle and secondary vocational education teachers were age 55 and over. Special education teachers as a group were even older, with 28.8% of secondary school special education teachers falling into the 55-plus category. While the absolute number of special education and vocational teachers falling into the oldest age category is relatively small, their key functions in the district are relatively important. Given the time needed to train teachers, the position in the boom generation of vocational and special education teachers makes it important that their aging and exit behavior not only be tracked but anticipated.

Exit behavior and the aging of the teaching population is not distributed evenly across the state. Exit rates for teachers were highest in Hot Springs, Sublette, Teton, and Weston counties from the 2010/11 to 2011/12 school years. The exit rates are lower in four other counties, but still in the double digits. Double-digit exit rates and situations where the population of teachers age 55 and older is equal to or greater than one in four teachers (between 25.5% and 28.8%) are found in Big Horn, Carbon, Fremont, Hot Springs, and Weston counties (see Table 4-3, page 52). The counties with the greatest proportion of teachers age 55 and older (between 28.6% and 32.9%) were Crook, Hot Springs, Platte, and Weston. Time (and the unavailability of Retirement Board data) does not permit an analysis of which counties have comparatively greater need to recruit for teachers who have left as a function of baby boom generation retirement effects, in contrast to situations where an economic explanation may be more reasonable. Nor has there been sufficient time to use the Professional Teaching Standards Board files to determine if schools were successful in adding replacements to the payroll.

What is clear is that some counties are currently exposed to higher relative recruitment costs as a function of higher exit rates, and that some counties can be expected to encounter exits due to retirement at a higher level than others in the very near term.

There is little question that the great recession challenged traditional views about

(Text continued on page 52)

Table 4-2: **Age Distribution of Teachers in Public Schools in Wyoming, 2011/12 School Year**

	All Primary, Secondary, & Special Education Teachers (25-2000)		Kindergarten Teachers, Except Special Education (25-2012)		Elementary School Teachers, Except Special Education (25-2021)		Middle School Teachers, Except Special and Vocational Education (25-2022)		Vocational Education Teachers, Middle School (25-2023)		Secondary School Teachers, Except Special and Vocational Education (25-2031)		Vocational Education Teachers, Secondary School (25-2032)		Special Education Teachers, Kindergarten and Elementary School (25-2052)		Special Education Teachers, Middle School (25-2053)		Special Education Teachers, Secondary School (25-2054)	
Age Group	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
20-24	207	2.8%	18	4.1%	88	4.0%	33	2.5%	n.d.	n.d.	38	2.1%	7	1.8%	10	2.7%	5	1.2%	n.d.	2.1%
25-34	1,879	25.5%	144	33.1%	607	27.3%	344	26.1%	n.d.	n.d.	476	26.5%	61	15.4%	81	22.2%	90	21.3%	n.d.	16.0%
35-44	1,839	24.9%	120	27.6%	515	23.2%	326	24.7%	17	23.9%	469	26.2%	99	25.0%	90	24.7%	105	24.8%	91	27.0%
45-54	1,843	25.0%	89	20.5%	525	23.6%	335	25.4%	21	29.6%	459	25.6%	130	32.8%	89	24.4%	105	24.8%	88	26.1%
55 and Older	1,609	21.8%	64	14.7%	486	21.9%	280	21.2%	18	25.4%	351	19.6%	99	25.0%	95	26.0%	118	27.9%	97	28.8%
Total	**7,377** Unknown Age = 1	**100.0%**	**435**	**100.0%**	**2,221**	**100.0%**	**1,318**	**100.0%**	**71**	**100.0%**	**1,793** Unknown Age = 1	**100.0%**	**396**	**100.0%**	**365**	**100.0%**	**423**	**100.0%**	**337**	**100.0%**

n.d. = not disclosable.

Source: Wyoming Department of Education Contract Files

(Text continued from page 50)

working past traditional retirement age (Moeller, 2012). And the future may reveal that teachers in Wyoming have adapted their strategies to include extending their work in public education beyond traditional retirement age. However, the most recently available contract data (WDE 602) presented in Table 4-4 suggests that few teachers in Wyoming work as teachers in public education beyond age 65.Only 1.2 percent of teachers under contract in the 2011/2012 year were age 65 or greater. Further investigation is required to confirm that the reduction in earnings for those 65 plus, compared to those in the 45 to 64 year segment, are a function of reduced responsibilities. However, it is clear that the demographics of work need to be monitored in order to understand how the structure of compensation is affected over time.

The earnings differential between younger teachers and those in the age bracket approaching traditional retirement age is substantial. This suggests that as the leading edge of the boom generation begins to retire that the wage differential may be made available to improve compensation levels for younger and/or newly recruited teachers. The wage differential between those aged 55-64 (earning an average of $63,835) and those aged 25-34 (earning $50,879) is $12,956 (or, 25.5%). Theoretically, as the boom generation begins to retire, that wage differential becomes available for reallocation to other teaching positions, vacancies, or for other human and non-human resource needs.

The capacity to pinpoint geographic areas and categories of teachers undergoing rapid demographic change may allow the supply system to respond more efficiently to district need, provided that the information is widely distributed and made available to those who can use it. Knowing which areas of the state are exposed to the greatest level of risk could be used to mitigate risk and, in the process, facilitate college student decisions about which specific areas of study are most likely to present the greatest opportunity at the earliest moment.

Table 4-3: Percentage of Workers Age 55 and Older and Exit Rate for All Primary, Secondary, & Special Education Teachers (25-2000) in Public Schools in Wyoming, 2010/11 to 2011/12 School Years

		Workers Age 55 and Older		Total Leavers	
County	Contract Employment, 2010/11	N	%	N	Exit Rate
Albany	347	73	21.0%	30	8.6%
Big Horn	208	53	25.5%	21	10.1%
Campbell	655	133	20.3%	37	5.6%
Carbon	240	65	27.1%	25	10.4%
Converse	215	44	20.5%	21	9.8%
Crook	105	30	28.6%	9	8.6%
Fremont	564	153	27.1%	58	10.3%
Goshen	171	37	21.6%	12	7.0%
Hot Springs	66	19	28.8%	14	21.2%
Johnson	121	20	16.5%	13	10.7%
Laramie	1,087	207	19.0%	49	4.5%
Lincoln	244	54	22.1%	15	6.1%
Natrona	879	149	17.0%	72	8.2%
Niobrara	59	9	15.3%	3	5.1%
Park	323	69	21.4%	24	7.4%
Platte	143	47	32.9%	13	9.1%
Sheridan	371	88	23.7%	26	7.0%
Sublette	140	17	12.1%	19	13.6%
Sweetwater	589	155	26.3%	56	9.5%
Teton	221	39	17.6%	25	11.3%
Uinta	362	79	21.8%	28	7.7%
Washakie	134	32	23.9%	5	3.7%
Weston	101	30	29.7%	12	11.9%
Wyoming	**7,345**	**1,602**	**21.8%**	**587**	**8.0%**

Source: Wyoming Department of Education Contract Files (WDE 602).

Table 4-4: Average Annual Wage by Age Group for All Primary, Secondary, & Special Education Teachers (25-2000), 2011/12 School Year

	Total Contracts		
Age	N	%	Average Annual Wage
20-24	207	2.8%	$44,964
25-34	1,879	25.5%	$50,879
35-44	1,839	24.9%	$57,722
45-54	1,843	25.0%	$62,371
55-64	1,522	20.6%	$63,835
65-Up	87	1.2%	$60,192
Total	7,377	100.0%	$58,075

Unknown Age = 1

Source: Wyoming Department of Education Contract Files

Chapter 5: Industry Educational Attainment, Aging Professionals, and Teacher Supply

by: Lisa Knapp, Research Analyst

Replacement need refers to the more or less permanent withdrawal of employed individuals from work that, providing demand is constant or expanding, necessitates their replacement. Replacement need results from withdrawal from the market to care for a family member, worker death, retirement, return to school, or any other reason workers withdraw from the market permanently or on an extended basis.

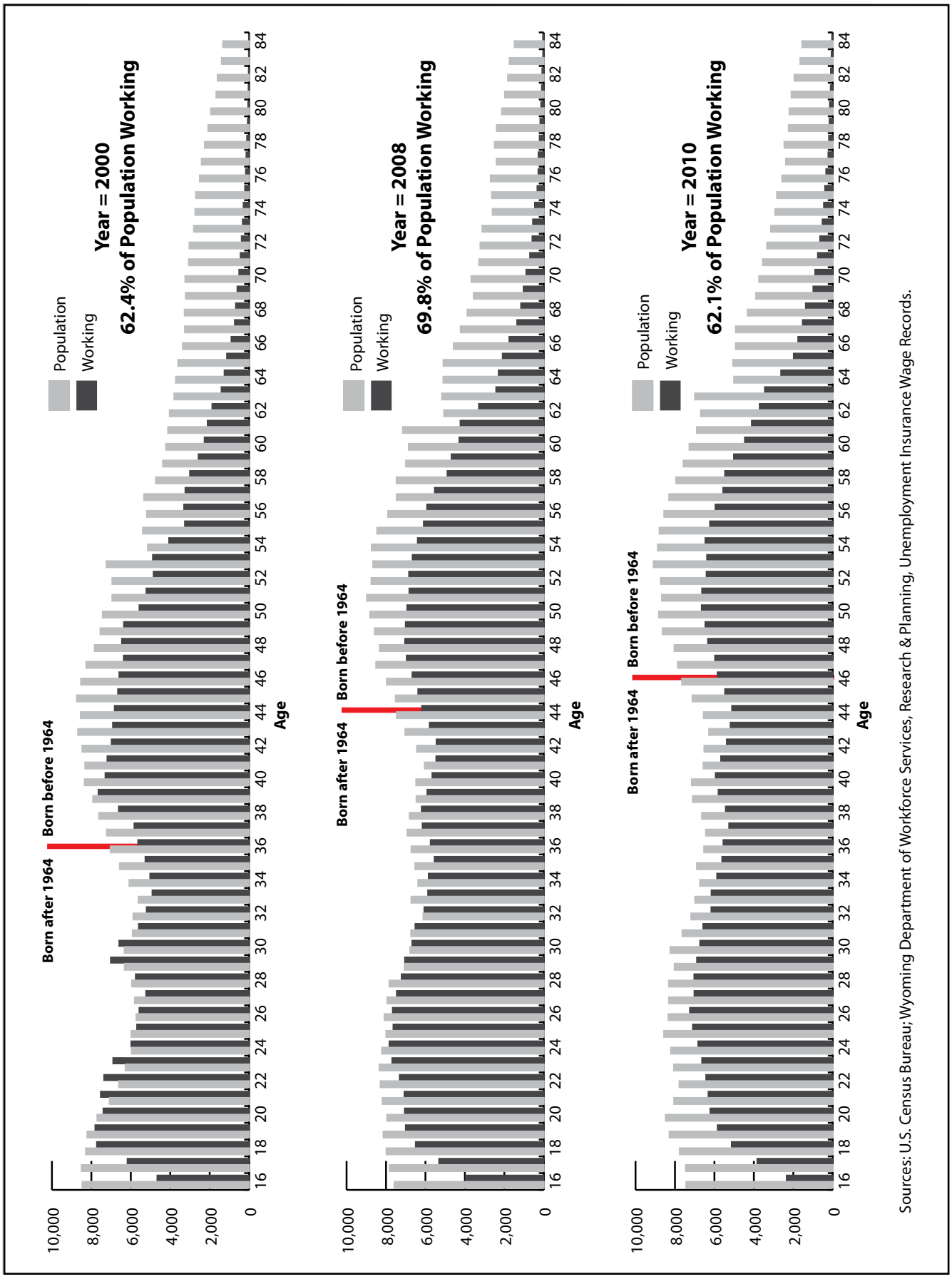
As described in the previous chapter, one in five teachers of record (WDE 602 report) was age 55 or older in the 2011/12 school year. Time restraints and the lack of access to Retirement Board files did not provide an opportunity to develop of a sophisticated projection of replacement need as a function of retirement. However, a simple model illustrates the effect of retirement for the segment of teachers of record for the 2011/2012 school year for those 55 and older: 7,345 teachers x .218 = 1,601/10, or 160 per year on average (see Table 4-2, page 51; total percent 55 and older). At this level, the replacement of retiring teachers may not seem problematic. However, in context, it appears that meeting the demand for more teachers will create issues for the supply system and recruitment efforts.

In addition to a large segment of teachers reaching retirement age, other professionals needing college degrees will reach retirement age simultaneously, and it appears several professions will reach the age of 65 sooner in Wyoming than in the nation as a whole.

Of necessity, this chapter introduces the use of new data sources to describe a developing replacement need circumstance among professions requiring higher education that seem likely to add to labor cost pressures over the following decade. This chapter also briefly describes trends in the supply of new teaching degree holders in Wyoming, surrounding states, and the nation.

The process of filling open jobs is exacerbated by an aging baby boom generation (individuals born between 1946 and 1964) who either have reached or are approaching the traditional retirement age of 65, especially in Wyoming. Figure 5-1 (see page 54) shows how the age of Wyoming's workers and overall population changed from 2000 to 2010, with workers age 55 and older making up a considerably larger segment of the workforce in 2010 than in 2000.

As the following analysis shows, there is a large proportion of workers age 55 and older in occupations that require a higher level of education. Also, there is a large proportion of workers with at least a bachelor's degree concentrated within a few industries, and those industries also have a large percentage of older workers. These factors may lead to increased competition for employees. Additionally, at least in terms of teacher replacements, the number of education degree completers within Wyoming's higher education system has declined or remained constant in recent years. However, the number of graduates in these programs has increased in surrounding states. Although there may not be enough local graduates to fill teaching jobs in the state, there is a larger pool to recruit from at the regional level.



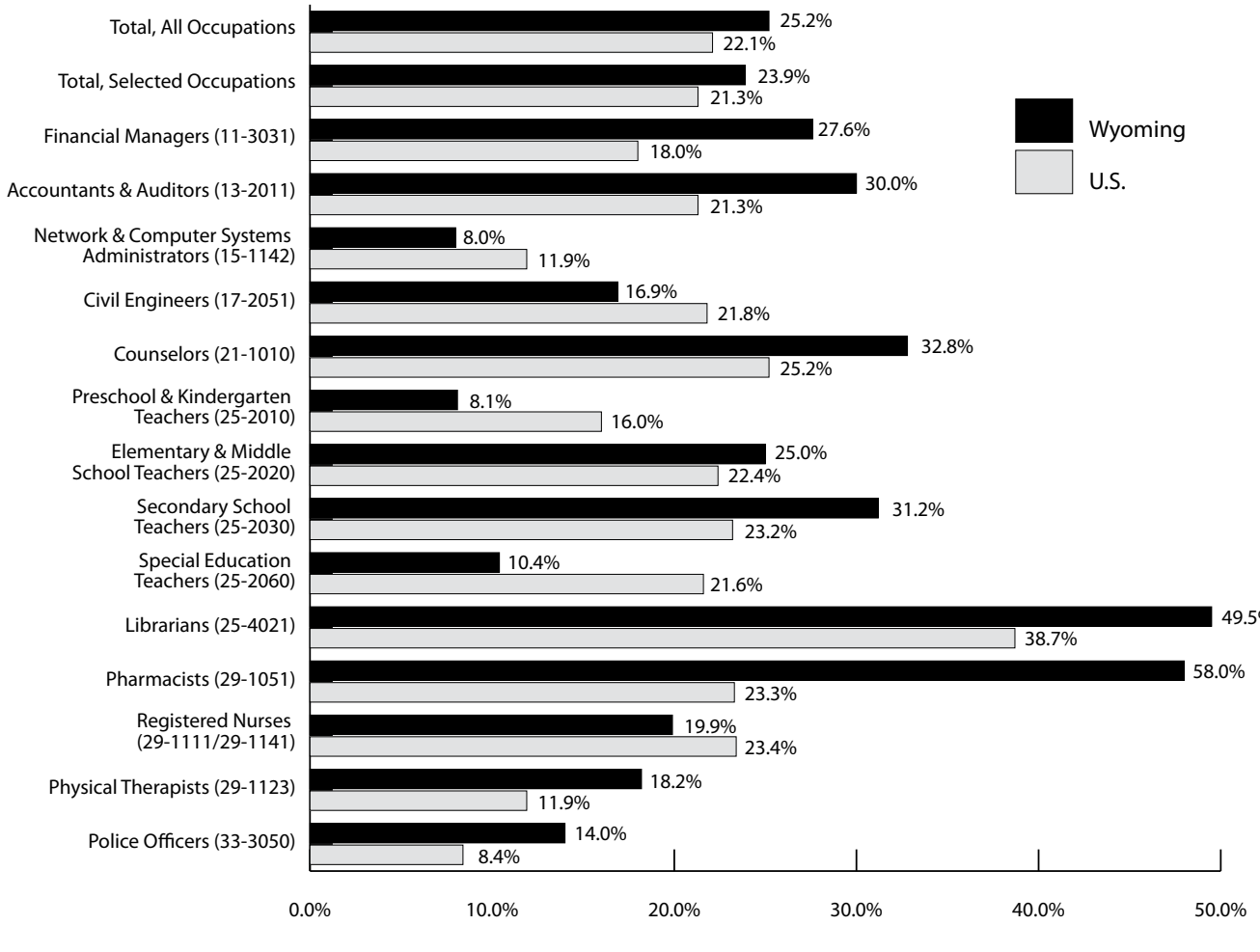
Sources: U.S. Census Bureau; Wyoming Department of Workforce Services, Research & Planning, Unemployment Insurance Wage Records.

Figure 5-1: **Estimates of the Resident Population and Working Population by Single Years of Age in Wyoming for Selected Years (Ages 16+)**

Replacement Need by Occupation

Several tables and figures presented in this section were created using data from the United States Census Bureau's 2010 American Community Survey (ACS). The ACS is a sample-based survey in which a sample of the population is selected to participate and those responses are then weighted to represent the entire population. The data used in this analysis are a three-year average of survey responses collected between January 1, 2008 and December 31, 2010 in Wyoming and the U.S. Because there are more responses used to create the estimates, the three-year estimate data set is more reliable and better for analyzing areas with smaller populations such as Wyoming.

Figure 5-2 shows the percentage of employed workers age 55 and older for



Source: American Community Survey, U.S. Census Bureau.

Figure 5-2: Percentage of Employed Workers Age 55 and Older for Selected Occupations in Wyoming and the U.S., 2010

selected occupations in Wyoming and the United States. Occupations were selected based on similar educational requirements as teaching occupations; a minimum of a bachelor's degree was generally required for all selected occupations, excluding registered nurses and police officers. It should be noted that because the ACS is based on a sample, there are some issues with missing data. In particular, we know the number of jobs worked in any occupation based on the U.S. Bureau of Labor Statistics' (BLS) Occupational Employment Survey program. However, if no respondent in the ACS worked in a particular occupation, that occupation would not be available for estimation. The occupations in this analysis were chosen because they had similar educational requirements as teaching occupations and also because they comprised a sufficient proportion of the sample to make reliable comparisons.

Overall, there were a greater proportion of workers age 55 and older in Wyoming (25.2%) than in the U.S. (22.1%) in all occupations. There were more workers age 55 and older in Wyoming than in the U.S. in nine of the selected occupations, including elementary and middle school teachers (25.0% compared to 22.4%), secondary school teachers (31.2% compared to 23.2%) , librarians (49.5% compared to 38.7%), and pharmacists (58.0% compared to 23.3%). This suggests that, assuming other professional occupations show similar trends to the occupations included in this analysis, workers in professional occupations are aging out of the workforce faster in Wyoming than in the nation as a whole. This creates a demand for educated workers, which places stress on educational institutions that create supply. Employers must recruit across larger geographies to replace retiring workers in several areas of the workforce. These factors increase competition for workers that could be filling vacant teaching positions.

Replacement Need by Industry and Education

Table 5-1 (see page 57) shows the number and proportion of workers in 2010 (three-year average estimates) who were employed and age 25 and older by industry and highest level of education attained for both Wyoming and the United States. In Wyoming, 29.5% of these workers had a high school diploma, 27.9% had some college but no degree, and 26.5% had a bachelor's degree or greater. In comparison, 33.9% of workers nationally had a bachelor's degree, 25.4% had a high school diploma, and 22.4% had some college but no degree. Overall, a greater proportion of Wyoming workers had an associate's degree (11.3%) compared to workers nationally (8.9%), but a substantially larger proportion of workers nationally had a bachelor's degree or greater (33.7%) compared to workers in Wyoming (26.5%). Workers in Wyoming tend to be less educated than the nation as a whole and those who are well educated tend to be concentrated in a few industries.

Although other tables in this report contain employment data specific to public schools, the data in this table are categorized based on industrial classification (two-digit NAICS group). This means that educational services includes all public school workers, as well as those working in higher education institutions and will therefore show a greater number of workers.

In Wyoming, the largest proportion of employees with a bachelor's degree

(Text continued on page 58)

Table 5-1: **Education Level by Industry, Wyoming and U.S. Employed Workers Age 25 and Older, 2010 (3-Year Average)**

Industry	Less Than High School Diploma		High School Diploma or GED		Some College, No Degree		Associates Degree		Bachelors Degree or Higher		Total	
	N	Row %	N	Row %	N	Row %	N	Row %	N	Row %	N	Row %
Wyoming												
Natural Resources & Mining	1,994	6.4	11,235	36.1	9,090	29.2	3,300	10.6	5,499	17.7	31,118	100.0
Construction	2,107	10.0	9,533	45.2	5,636	26.7	1,722	8.2	2,083	9.9	21,081	100.0
Manufacturing	822	6.6	4,285	34.6	3,666	29.6	1,668	13.5	1,951	15.7	12,392	100.0
Wholesale Trade, Transportation, & Utilities	1,359	6.0	8,674	38.0	7,611	33.4	2,619	11.5	2,556	11.2	22,819	100.0
Retail Trade	1,503	6.1	9,338	38.1	8,320	34.0	1,927	7.9	3,398	13.9	24,486	100.0
Information	66	1.6	1,015	24.6	1,048	25.4	602	14.6	1,393	33.8	4,124	100.0
Financial Activities	98	0.9	2,852	26.1	3,371	30.8	992	9.1	3,632	33.2	10,945	100.0
Professional & Business Services	618	3.8	3,099	19.3	3,312	20.6	1,905	11.9	7,126	44.4	16,060	100.0
Educational Services	302	1.2	3,765	14.4	3,921	15.0	2,128	8.1	16,104	61.4	26,220	100.0
Health Care & Social Services	776	2.7	6,452	22.4	7,677	26.6	5,197	18.0	8,709	30.2	28,811	100.0
Leisure & Hospitality	1,357	8.2	5,596	33.9	4,902	29.7	1,193	7.2	3,439	20.9	16,487	100.0
Other Services, Except Public Administration	683	6.1	3,903	34.8	3,351	29.9	1,142	10.2	2,134	19.0	11,213	100.0
Public Administration	186	1.0	2,466	12.7	6,573	33.8	3,390	17.4	6,859	35.2	19,474	100.0
Unknown	37	2.7	496	36.6	361	26.6	113	8.3	348	25.7	1,355	100.0
Total	**11,908**	**4.8**	**72,709**	**29.5**	**68,839**	**27.9**	**27,898**	**11.3**	**65,231**	**26.5**	**246,585**	**100.0**
U.S.												
Natural Resources & Mining	597,995	26.0	776,409	33.8	404,048	17.6	139,143	6.1	379,397	16.5	2,296,992	100.0
Construction	1,787,432	20.7	3,288,726	38.1	1,945,649	22.5	552,150	6.4	1,064,257	12.3	8,638,214	100.0
Manufacturing	1,699,652	12.3	4,508,813	32.7	2,936,517	21.3	1,095,428	7.9	3,566,750	25.8	13,807,160	100.0
Wholesale Trade, Transportation, & Utilities	1,013,486	9.7	3,484,854	33.2	2,796,642	26.6	880,648	8.4	2,321,122	22.1	10,496,752	100.0
Retail Trade	1,230,074	10.4	4,108,141	34.7	3,125,070	26.4	975,587	8.2	2,393,122	20.2	11,831,994	100.0
Information	72,928	2.5	486,567	16.9	715,003	24.9	262,902	9.1	1,339,119	46.6	2,876,519	100.0
Financial Activities	267,431	3.0	1,654,190	18.6	2,250,350	25.2	791,529	8.9	3,953,776	44.3	8,917,276	100.0
Professional & Business Services	1,090,937	8.1	2,329,647	17.2	2,586,619	19.1	1,083,540	8.0	6,460,016	47.7	13,550,759	100.0
Educational Services	311,347	2.6	1,418,789	12.0	1,448,525	12.2	654,649	5.5	8,007,542	67.6	11,840,852	100.0
Health Care & Social Services	968,313	5.7	3,344,603	19.7	3,788,716	22.3	2,622,513	15.4	6,281,028	36.9	17,005,173	100.0
Leisure & Hospitality	1,534,089	18.3	2,545,631	30.4	2,006,353	24.0	603,708	7.2	1,677,361	20.0	8,367,142	100.0
Other Services, Except Public Administration	887,647	14.5	1,940,759	31.8	1,386,452	22.7	471,640	7.7	1,414,395	23.2	6,100,893	100.0
Public Administration	140,695	1.9	1,290,672	17.5	2,104,634	28.6	877,756	11.9	2,947,384	40.0	7,361,141	100.0
Unknown	104,056	11.1	297,456	31.7	231,682	24.7	76,610	8.2	227,304	24.3	937,108	100.0
Total	**11,706,082**	**9.4**	**31,475,257**	**25.4**	**27,726,260**	**22.4**	**11,087,803**	**8.9**	**42,032,573**	**33.9**	**124,027,975**	**100.0**

Source: U.S. Census Bureau, American Community Survey (2010 3-Year Average).

(Text continued from page 28)

or higher worked in educational services (61.4%), professional and business services (44.4%), and public administration (35.2%). As shown in Table 5-2, in 2010, 63.3% of employees in educational services were female and more than a quarter (27.2%) were age 55 and older. In public administration, 43.7% of workers were female and 23.8% were age 55 and older, and in professional and business services 36.4% were female and only 16.9% were age 55 and older. Complete demographics tables comparing gender, age, wages, and job tenure for Wyoming workers are available for 1992 to 2011 at http://doe.state.wy.us/LMI/earnings_tables/2012/industry.htm.

The data from these two tables are combined in Figure 5-3 (see page 59). This figure illustrates that educational services has the highest percentage of workers age 55 and older and the highest percentage of workers holding a bachelor's degree or higher.

As noted earlier, people working in professional occupations are aging out of the workforce faster in Wyoming than in the U.S. The data shown in this section suggests a similar trend at the industry level. Data from the ACS show that some industries, such as public administration and educational services, have a high proportion of employees with at least a bachelor's degree, and, according to R&P's demographics tables, there is a large proportion of workers age 55 and older in those industries who will presumably be leaving the workforce within the next 10 years. Given the more rapid aging of the workforce in industries with workers holding post-high school degrees, circumstances may lead to significant competition for qualified employees.

Table 5-2: **Demographics of Wyoming by Industry as a Percentage of Total Employment, 2010**

	Gender			
Industry	Female	Male	Nonresident[a]	Age 55 and Older
Natural Resources & Mining	10.9	74.1	15.1	14.9
Construction	7.9	60.4	31.8	10.5
Manufacturing	20.7	72.5	6.8	20.4
Wholesale Trade, Transportation, & Utilities	19.7	70.7	9.6	20.9
Retail Trade	47.8	40.0	12.2	15.9
Information	45.8	46.2	7.9	20.1
Financial Activities	58.7	34.0	7.3	21.2
Professional & Business Services	36.4	45.5	18.0	16.9
Educational Services	63.3	29.7	7.0	27.2
Health Care & Social Services	74.5	16.6	8.9	19.8
Leisure & Hospitality	41.5	31.5	26.9	7.6
Other Services, Except Public Administration	39.1	46.7	14.1	17.2
Public Administration	43.7	52.5	3.9	23.8
Unknown	43.5	48.3	8.2	21.3
Total	**38.9**	**45.8**	**15.3**	**16.9**

Source: Wyoming Wages by County, Industry, Age, & Gender, 1992-2011, Research & Planning, Wyoming Department of Workforce Services.

Nonresidents are workers who do not have a Wyoming-issued driver's license and work less than four quarters in Wyoming (Jones, 2002). Demographic data are not available for these workers. More information is available at http://doe.state.wy.us/LMI/1102/a1.htm.

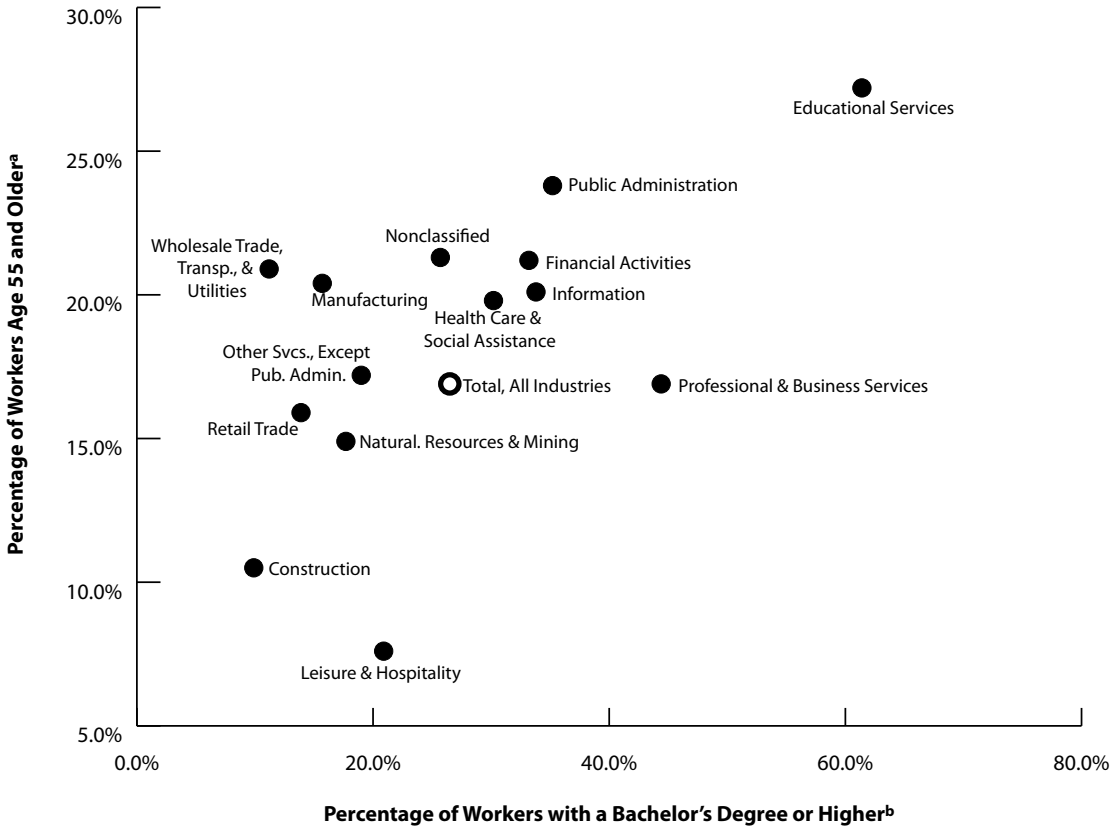
Trends in the Current Supply System

Table 5-3 (see page 60) contains the number of degree completers, or graduates, in select education-related degree programs in Wyoming, other states in the region, and nationally. A crosswalk comparing the Classification of Instructional Programs (CIP) codes from the National Center for Educational Statistics to the

Standard Occupational Classification (SOC) codes from the U.S. Bureau of Labor Statistics was used to determine which CIP codes to include in the data. These CIP codes were related to preschool and kindergarten teachers (SOC code 25-2010), elementary & middle school teachers (SOC code 25-2020), secondary school teachers (SOC code 25-2030), and special education teachers (SOC code 25-2050). The data in this table are only for degree completers at institutions that offer primarily baccalaureate degrees or higher because the minimum level of higher education needed to become a teacher is a four-year degree.

In 2011, 239 education degrees were conferred at the University of Wyoming, the state's sole four-year degree provider. This was a 7.4% decline from 2010 when 258 education degrees were conferred, and a 4.8% decline from 2008 when 251 degrees were conferred.

In comparison, the number of education program graduates in four of the six surrounding states increased between 2010 and 2011, although only three of these had increased graduates between 2008 and 2011. For example, Utah had 3,456 graduates in 2011, a 24.8% increase from 2010 (2,770) and a 20.8% increase from 2008 (2,860). Similarly, there were 2,250 graduates in these programs in Nebraska during 2011,



[a]Source: Wyoming Wages by County, Industry, Age, & Gender, 1992-2011, Research & Planning, Wyoming Department of Workforce Services.
[b]Source: U.S. Census Bureau, American Community Survey (2010 3-Year Average).

Figure 5-3: Percentage of Workers Age 55 and Older and Percentage of Workers with a Bachelor's Degree or Higher by Industry in Wyoming, 2010

up from 1,919 graduates in 2010 (17.2%) and 2,101 graduates in 2008 (7.1%).

Regionally, the number of graduates from education programs increased from 8,106 graduates in 2010 to 8,996 graduates in 2011, which was an 11.0% increase. There was a 6.5% increase in the number of these graduates from 2008 (8,445). In comparison, the number of graduates in these degree programs nationally decreased from 182,739 in 2010 to 180,397 in 2011, a 1.3% decrease. The total graduates from all U.S. degree programs increased by 1.3% from 178,004 in 2008.

Although the overall supply of new education-related degree holders has declined in Wyoming over the past four years and is down slightly for the nation as a whole, it has increased in the surrounding states. Based on these trends, it appears that there is expanding capacity, especially at a regional level, to supply workers with teaching certificates to positions vacated in Wyoming.

Table 5-3: **Number of Education Degrees Conferred by Institutions Granting Predominantly 4-Year Degrees, State and National, and Percent Change by Year, 2008-2011**

	2011	% Change, 2010-2011	2010	% Change, 2009-2010	2009	% Change, 2008-2009	2008	% Change, 2008-2011
Wyoming	239	-7.4	258	2.4	252	0.4	251	-4.8
Nebraska	2,250	17.2	1,919	-10.7	2,149	2.3	2,101	7.1
South Dakota	493	-25.6	663	8.5	611	3.0	593	-16.9
Idaho	1,209	-3.4	1,252	3.9	1,205	4.8	1,150	5.1
Montana	592	12.1	528	-10.8	592	-10.8	664	-10.8
Colorado	757	5.7	716	-3.0	738	-10.7	826	-8.4
Utah	3,456	24.8	2,770	3.1	2,687	-6.0	2,860	20.8
Regional Total	*8,996*	*11.0*	*8,106*	*-1.6*	*8,234*	*-2.5*	*8,445*	*6.5*
U.S. Total	**180,397**	**-1.3**	**182,739**	**1.2**	**180,533**	**1.4**	**178,004**	**1.3**

Source: National Center for Education Statistics/Integrated Postsecondary Education System.

Note: CIP codes chosen based on crosswalk to SOC codes for kindergarten, elementary, middle school, secondary, and related special education teachers. Totals include both first- and second-major degrees conferred. Totals include graduates of institutions granting primarily baccalaureate degrees or higher only.

Table 5-4: **Number of Degrees Conferred in Institutions Granting Predominantly Four-Year Degrees or Higher in Teaching-Related Programs and All Programs, and Ratio of Teaching Degrees to All Degrees by State and National, 2008-2011**

	2011			2010			2009			2008		
	Teaching Degrees	All Degrees	Ratio	Teaching Degrees	All Degrees	Ratio	Teaching Degrees	All Degrees	Ratio	Teaching Degrees	All Degrees	Ratio
Wyoming	239	2,729	8.8	258	2,567	10.1	252	2,608	9.7	251	2,609	9.6
Nebraska	2,250	21,242	10.6	1,919	20,083	9.6	2,149	19,954	10.8	2,101	19,337	10.9
South Dakota	493	8,279	6.0	663	7,798	8.5	611	7,861	7.8	593	7,713	7.7
Idaho	1,209	13,992	8.6	1,252	14,228	8.8	1,205	14,006	8.6	1,150	12,303	9.3
Montana	592	8,219	7.2	528	7,429	7.1	592	7,468	7.9	664	7,313	9.1
Colorado	757	46,041	1.6	716	44,087	1.6	738	41,791	1.8	826	41,606	2.0
Utah	3,456	37,182	9.3	2,770	33,227	8.3	2,687	32,206	8.3	2,860	31,290	9.1
Regional Total	*8,996*	*137,684*	*6.5*	*8,106*	*129,419*	*6.3*	*8,234*	*125,894*	*6.5*	*8,445*	*122,171*	*6.9*
U.S.	**180,397**	**2,834,818**	**6.4**	**182,739**	**2,716,241**	**6.7**	**180,533**	**2,612,954**	**6.9**	**178,004**	**2,520,212**	**7.1**

Source: National Center for Education Statistics/Integrated Postsecondary Education System.

Note: CIP codes chosen based on crosswalk to SOC codes for kindergarten, elementary, middle school, secondary, and related special education teachers. Totals include both first- and second-major degrees conferred. Totals include graduates of institutions granting primarily baccalaureate degrees or higher only.

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Note: Some references, such as the Wyoming Department of Education WDE 602/652 Data Collection Guidebook, were used for more that one chapter in this publication.

Wyoming Department of Workforce Services
Research & Planning
P.O. Box 2760
Casper, WY 82601

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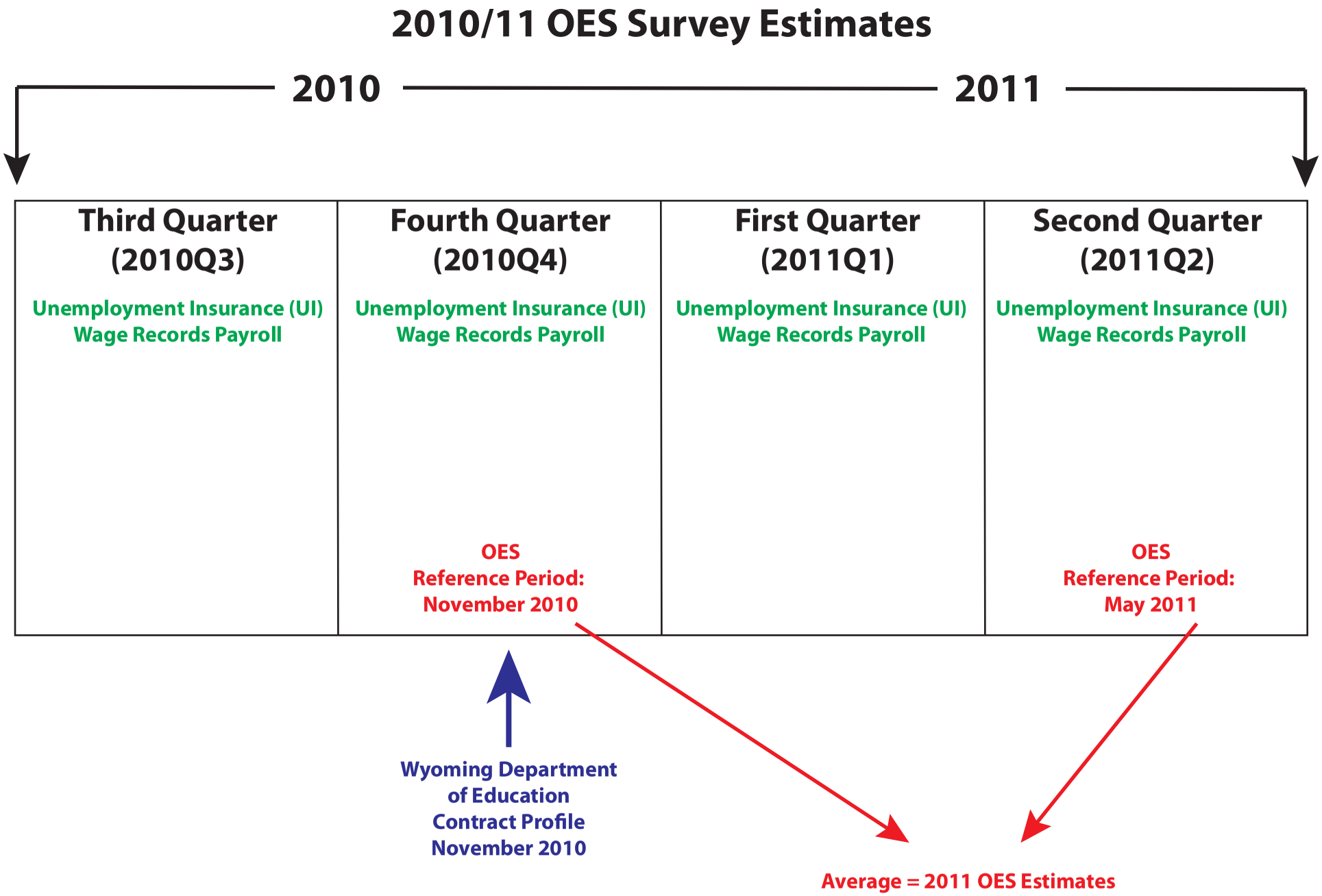
Appendix A: Data Collection Schematics for Occupational Employment Statistics (OES), WDE 602 - WISE Fall School District Staff Member Collection, and Unemployment Insurance Wage Records



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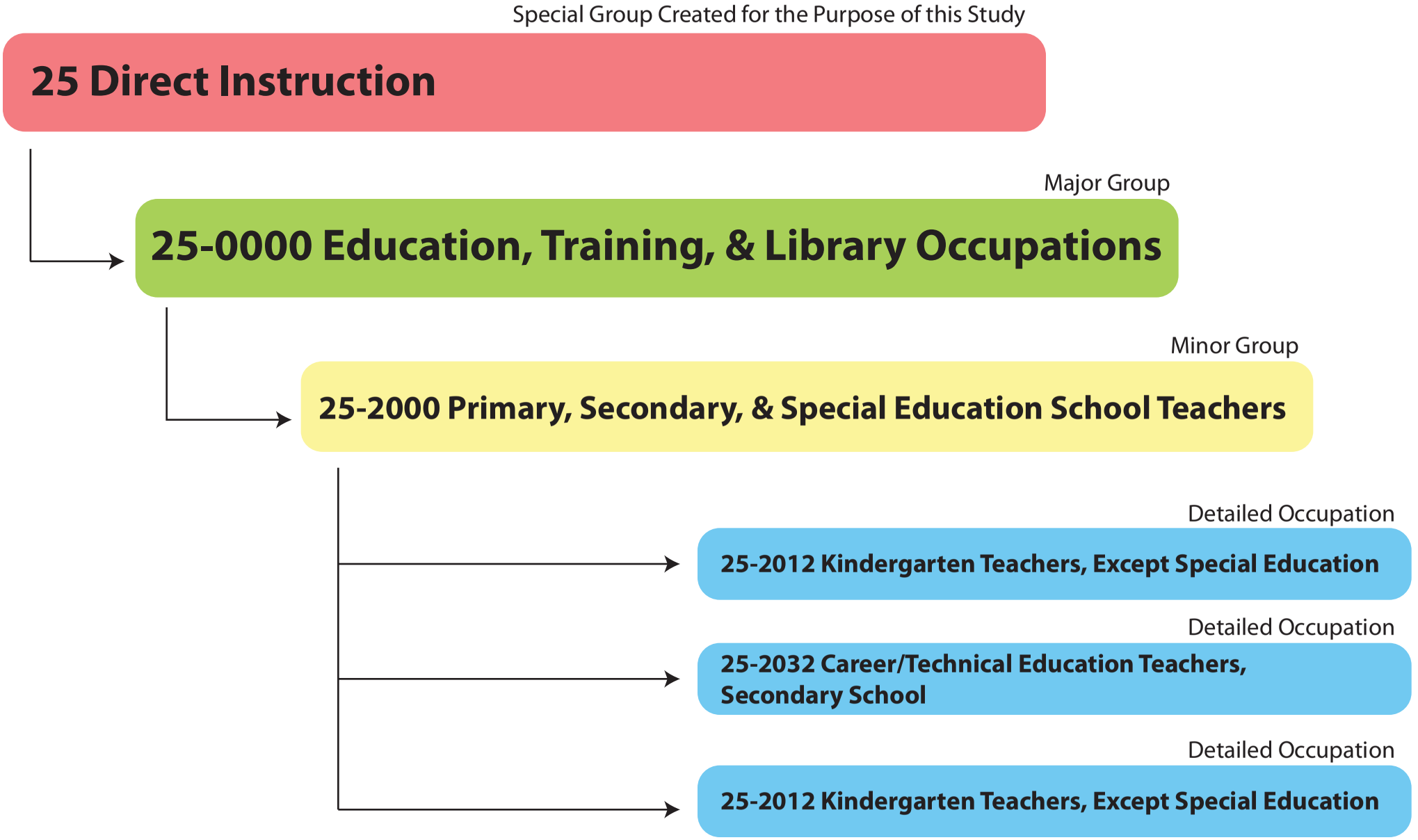
Appendix A

Standard Occupational Classification (SOC) System Structure



For more information: http://www.bls.gov/soc/home.htm
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Appendix B

Employment and Wage Change for Teachers in Public Schools in Wyoming and Surrounding States, 2008/09 to 2010/11

Monitoring School District Cost Pressures

A Report to the Wyoming Joint Education Committee

October 2012

Research & Planning
Wyoming DWS

Introduction: Understanding These Tables

by: Patrick Harris, Principal Economist

The tables on pages B3 to B13 use data collected from the Occupational Employment Statistics (OES) survey to show the employment level and average annual wage for all primary, secondary, and special education teachers (25-2000) in public schools in Wyoming and surrounding states for the 2008-09 and 2010-11 school years. These tables also allow for a quick comparison of the average annual wage for surrounding states and the U.S. to that of Wyoming.

The first column in each table provides information regarding the employment and average wage within each state and the U.S. In many cases, employment decreased while the average annual wage increased. For example, the table on page B3 shows employment and wage statistics for all primary, secondary, and special education teachers (SOC 25-2000). Wyoming had an estimated 8,227 jobs worked by teachers in public education in 2008/09; in 2010/11, that number decreased to 7,762, a change of -465 (-5.7%). During this period, the average annual wage increased from $56,127 to $57,805, a change of $1,678 (3.0%). Utah had the largest decrease in employment with 11.2%, while Colorado and South Dakota saw the only increases.

The second column compares the average annual wage for the U.S. and surrounding states to that of Wyoming. In 2009, the U.S. average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) was $54,547, compared to Wyoming's $56,127, a difference of $1,580 (-2.8%). In 2011 the gap between Wyoming and the U.S. average wage narrowed slightly to -1.9%. The states that narrowed the average wage gap compared to Wyoming were Colorado, Montana, Nebraska, and Utah. South Dakota experienced no change in the gap compared to Wyoming, while the gap between Idaho and Wyoming widened (-12.5% in 2009 to -18.0% in 2011).

The tables on pages B15 to be B17 are similar to the previous tables, but compare Wyoming's counties to the overall state average. While the previous tables were compiled using estimates from the Occupational Employment Statistics (OES), the tables on pages B15 to B17 are based on data in the Wyoming Department of Education Contract Files (WDE 602).

These tables show that in seven of Wyoming's counties (Campbell, Laramie, Park, Sheridan, Sublette, Sweetwater, and Teton), the average annual wage for all primary, secondary, and special education teachers (SOC 25-2000) than the state as a whole. Lincoln County was the only county to increase the average wage from being below the statewide average in 2008/09 to being above it in 2010/11. In 2008/09, Goshen, Natrona, and Uinta counties were above the statewide average but fell below the statewide average in 2010/11. The highest average wage was found in Teton County, where the average annual wage for teachers was 7.2% higher than the statewide average in 2008/09 and 12.6% higher in 2010/11.

In contrast, the lowest average wage was found in Niobrara County. In 2008/09, the average annual wage for teachers was 8.9% lower than the statewide average. In 2010/11 the average wage for teachers in Niobrara County was 19.7% lower than the statewide average.

Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and Surrounding States, 2008/09 and 2010/11

This group is a composite of all teachers involved in direct instruction in the classroom.

Wyoming

Employment				
2008-09	2010-11	Change	%	
8,227	7,762	-465	-5.7%	↓

Average Annual Wage				
2009	2010-11	Change	%	
$56,127	$57,805	$1,678	3.0%	↑

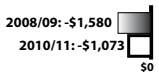
Wyoming teachers were paid more than teachers in surrounding states in both 2008-09 and 2010-11. The large gap in pay exists between Wyoming and South Dakota, where teachers were paid 31.5% less in South Dakota than in Wyoming during both years. The gap in between Wyoming teachers and those in surrounding states has narrowed in some states, such as Colorado (change from -12.4% to -11.9%) and Montana (-28.7% to -24.6%).

U.S.

Employment				
2008-09	2010-11	Change	%	
3,707,950	3,445,760	-262,190	-7.1%	↓

Average Annual Wage				
2009	2010-11	Change	%	
$54,547	$56,732	$2,185	4.0%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$1,580	-2.8%	-$1,073	-1.9%

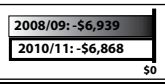


Colorado

Employment				
2008-09	2010-11	Change	%	
60,360	60,842	482	0.8%	↑

Average Annual Wage				
2009	2010-11	Change	%	
$49,188	$50,937	$1,749	3.6%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$6,939	-12.4%	-$6,868	-11.9%

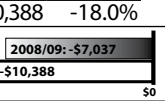


Idaho

Employment				
2008-09	2010-11	Change	%	
16,954	15,269	-1,685	-9.9%	↓

Average Annual Wage				
2009	2010-11	Change	%	
$49,090	$47,417	-$1,673	-3.4%	↓

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$7,037	-12.5%	-$10,388	-18.0%

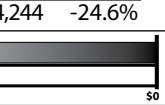


Montana

Employment				
2008-09	2010-11	Change	%	
13,036	12,147	-889	-6.8%	↓

Average Annual Wage				
2009	2010-11	Change	%	
$40,036	$43,561	$3,525	8.8%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$16,091	-28.7%	-$14,244	-24.6%

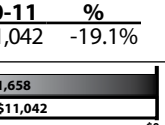


Nebraska

Employment				
2008-09	2010-11	Change	%	
25,831	24,175	-1,656	-6.4%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$44,469	$46,763	$2,294	5.2%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$11,658	-20.8%	-$11,042	-19.1%

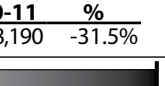


South Dakota

Employment				
2008-09	2010-11	Change	%	
11,549	11,780	231	2.0%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$38,436	$39,615	$1,179	3.1%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$17,691	-31.5%	-$18,190	-31.5%

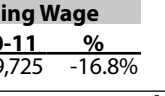


Utah

Employment				
2008-09	2010-11	Change	%	
28,186	25,032	-3,154	-11.2%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$46,145	$48,080	$1,935	4.2%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$9,982	-17.8%	-$9,725	-16.8%



Source: Occupational Employment Statistics.

Preschool Teachers, Except Special Education (25-2011) in Public Schools

Instruct children (normally up to 5 years of age) in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification. Exclude "Child Care Workers" (39-9011) and "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment

2008-09	2010-11	Change	%	
87	26	-61	-70.1%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$52,930	$43,170	-$9,760	-18.4%	↓

The gap in pay between preschool teachers in Wyoming and surrounding states narrowed or reversed for all states for which data are available from 2008-09 to 2010-11. Preschool teachers in Colorado earned $3,530 (-6.7%) less than those in Wyoming in 2008-09, but were paid $7,300 (16.9%) more in 2010-11.
Blank cells are not available or nondisclosable.

U.S.

Employment

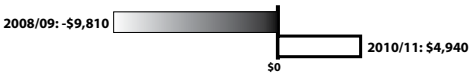
2008-09	2010-11	Change	%	
40,710	44,580	3,870	9.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$43,120	$48,110	$4,990	11.6%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$9,810	-18.5%	$4,940	11.4%



Colorado

Employment

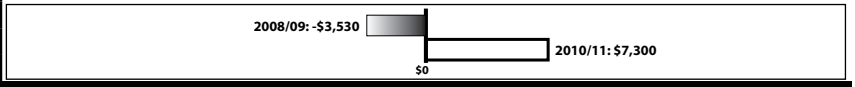
2008-09	2010-11	Change	%	
1,190	1,244	54	4.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$49,400	$50,470	$1,070	2.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,530	-6.7%	$7,300	16.9%



Idaho

Employment

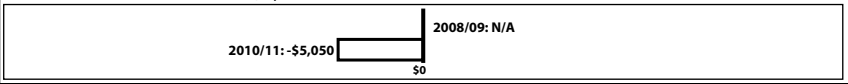
2008-09	2010-11	Change	%	
	64	N/A	N/A	

Average Annual Wage

2008-09	2010-11	Change	%	
	$38,120	N/A	N/A	

Comparison to Wyoming Wage

2008-09	%	2010-11	%
N/A	N/A	-$5,050	-11.7%



Montana

Employment

2008-09	2010-11	Change	%	
17	129	112	658.8%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$31,710	$26,040	-$5,670	-17.9%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$21,220	-40.1%	-$17,130	-39.7%

Nebraska

Employment

2008-09	2010-11	Change	%	
248	306	58	23.4%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$39,410	$41,190	$1,780	4.5%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$13,520	-25.5%	-$1,980	-4.6%

South Dakota

Employment

2008-09	2010-11	Change	%	
134	160	26	19.4%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$30,810	$34,350	$3,540	11.5%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$22,120	-41.8%	-$8,820	-20.4%

Utah

Employment

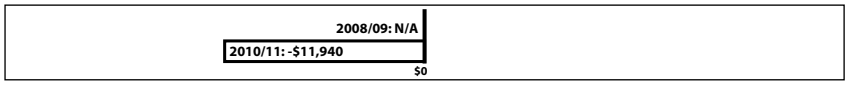
2008-09	2010-11	Change	%	
	238	N/A	N/A	

Average Annual Wage

2008-09	2010-11	Change	%	
	$31,230	N/A	N/A	

Comparison to Wyoming Wage

2008-09	%	2011	%
N/A	N/A	-$11,940	-27.7%



Source: Occupational Employment Statistics.

Kindergarten Teachers, Except Special Education (25-2012) in Public Schools

Teach elemental natural and social science, personal hygiene, music, art, and literature to children from 4 to 6 years old. Promote physical, mental, and social development. May be required to hold State certification. Exclude "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment				
2008-09	2010-11	Change	%	
419	433	14	3.3%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$52,630	$53,790	$1,160	2.2%	↑

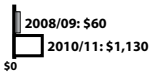
Kindergarten teachers in Wyoming were paid more than those in all surrounding states, but the gap narrowed from 2008-09 to 2010-11. Kindergarten teachers in Montana were paid $17,680 (-33.6%) less than those in Wyoming in 2008-09, compared to $12,140 (-22.6%) less in 2010-11.
Blank cells are not available or nondisclosable.

U.S.

Employment				
2008-09	2010-11	Change	%	
152,690	138,190	-14,500	-9.5%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$52,690	$54,920	$2,230	4.2%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
$60	0.1%	$1,130	2.1%

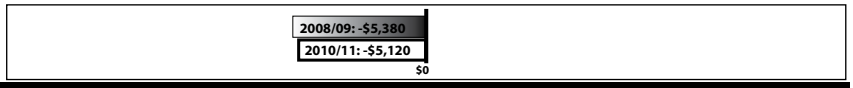


Colorado

Employment				
2008-09	2010-11	Change	%	
2,970	2,898	-72	-2.4%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$47,250	$48,670	$1,420	3.0%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$5,380	-10.2%	-$5,120	-9.5%



Idaho

Employment				
2008-09	2010-11	Change	%	
211	407	196	92.9%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$36,620	$40,860	$4,240	11.6%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$16,010	-30.4%	-$12,930	-24.0%

Montana

Employment				
2008-09	2010-11	Change	%	
587	523	-64	-10.9%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$34,950	$41,650	$6,700	19.2%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$17,680	-33.6%	-$12,140	-22.6%

Nebraska

Employment				
2008-09	2010-11	Change	%	
1,561	1,256	-305	-19.5%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$43,530	$45,290	$1,760	4.0%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$9,100	-17.3%	-$8,500	-15.8%

South Dakota

Employment				
2008-09	2010-11	Change	%	
489	534	45	9.2%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$36,590	$38,230	$1,640	4.5%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$16,040	-30.5%	-$15,560	-28.9%

Utah

Employment				
2008-09	2010-11	Change	%	
635	348	-287	-45.2%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$40,980	$43,160	$2,180	5.3%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$11,650	-22.1%	-$10,630	-19.8%

Source: Occupational Employment Statistics.

Elementary School Teachers, Except Special Education (25-2021) in Public Schools

Teach pupils in public or private schools at the elementary level basic academic, social, and other formative skills. Exclude "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment

2008-09	2010-11	Change	%	
2,806	2,944	138	4.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$55,500	$57,450	$1,950	3.5%	↑

Elementary school teachers in Wyoming were paid a considerably higher annual wage on average than those in surrounding states in 2008-09 and 2010-11, although some states did narrow that gap. For example, elementary school teachers in Montana earned $15,100 (-27.2%) less than those in Wyoming in 2008-09, but earned $12,980 (-22.6%) less in 2010-11. Blank cells are not available or nondisclosable.

U.S.

Employment

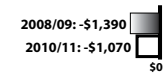
2008-09	2010-11	Change	%	
1,401,530	1,278,390	-123,140	-8.8%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$54,110	$56,380	$2,270	4.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,390	-2.5%	-$1,070	-1.9%



Colorado

Employment

2008-09	2010-11	Change	%	
21,730	22,223	493	2.3%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$48,500	$50,270	$1,770	3.6%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$7,000	-12.6%	-$7,180	-12.5%

Idaho

Employment

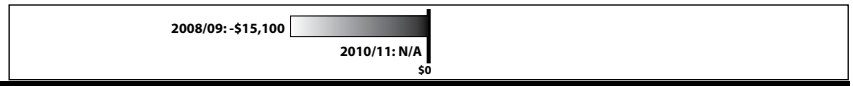
2008-09	2010-11	Change	%	
7,680		N/A	N/A	

Average Annual Wage

2008-09	2010-11	Change	%	
$48,900		N/A	N/A	

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$6,600	-11.9%	N/A	N/A



Montana

Employment

2008-09	2010-11	Change	%	
4,888	4,556	-332	-6.8%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$40,400	$44,470	$4,070	10.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$15,100	-27.2%	-$12,980	-22.6%

Nebraska

Employment

2008-09	2010-11	Change	%	
9,698	9,699	1	0.0%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$43,870	$46,240	$2,370	5.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$11,630	-21.0%	-$11,210	-19.5%

South Dakota

Employment

2008-09	2010-11	Change	%	
3,917	3,994	77	2.0%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$38,530	$39,580	$1,050	2.7%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$16,970	-30.6%	-$17,870	-31.1%

Utah

Employment

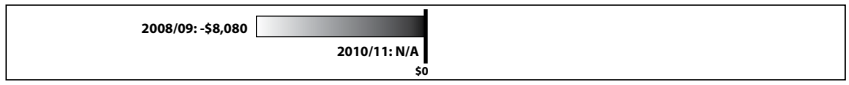
2008-09	2010-11	Change	%	
12,455		N/A	N/A	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$47,420		N/A	N/A	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$8,080	-14.6%	N/A	N/A



Source: Occupational Employment Statistics.

Middle School Teachers, Except Special and Career/Technical Education (25-2022)

Teach students in public or private schools in one or more subjects at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable State laws and regulations. Exclude "Middle School Vocational Education Teachers" (25-2023) and "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment

2008-09	2010-11	Change	%
1,391	1,169	-222	-16.0%

Average Annual Wage

2008-09	2010-11	Change	%
$57,380	$60,090	$2,710	4.7%

The average annual wage for middle school teachers increased from 2008/09 to 2010/11 for Wyoming, The U.S., and all surrounding states for which data were available. Wyoming middle school teachers were paid significantly more than teachers in surrounding states during both years.
Blank cells are not available or nondisclosable.

U.S.

Employment

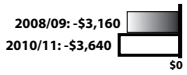
2008-09	2010-11	Change	%
609,070	589,410	-19,660	-3.2%

Average Annual Wage

2008-09	2010-11	Change	%
$54,220	$56,450	$2,230	4.1%

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,160	-5.5%	-$3,640	-6.1%



Colorado

Employment

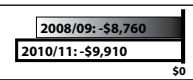
2008-09	2010-11	Change	%
12,737	11,966	-771	-6.1%

Average Annual Wage

2008-09	2010-11	Change	%
$48,620	$50,180	$1,560	3.2%

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$8,760	-15.3%	-$9,910	-16.5%



Idaho

Employment

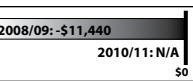
2008-09	2010-11	Change	%
2,166		N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
$45,940		N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$11,440	-19.9%	N/A	N/A



Montana

Employment

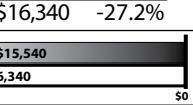
2008-09	2010-11	Change	%
2,074	1,585	-489	-23.6%

Average Annual Wage

2008-09	2010-11	Change	%
$41,840	$43,750	$1,910	4.6%

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$15,540	-27.1%	-$16,340	-27.2%



Nebraska

Employment

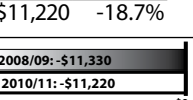
2008-09	2010-11	Change	%
3,585	3,129	-456	-12.7%

Average Annual Wage

2008-09	2010-11	Change	%
$46,050	$48,870	$2,820	6.1%

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$11,330	-19.7%	-$11,220	-18.7%



South Dakota

Employment

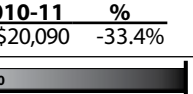
2008-09	2010-11	Change	%
2,020	1,948	-72	-3.6%

Average Annual Wage

2008-09	2010-11	Change	%
$39,510	$40,000	$490	1.2%

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$17,870	-31.1%	-$20,090	-33.4%



Utah

Employment

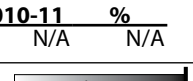
2008-09	2010-11	Change	%
5,718		N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
$47,150		N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$10,230	-17.8%	N/A	N/A



Source: Occupational Employment Statistics.

Career/Technical Education Teachers, Middle School (25-2023)

Teach or instruct vocational or occupational subjects at the middle school level. Exclude "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment

2008-09	2010-11	Change	%	
86	75	-11	-12.8%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,340	$57,820	$2,480	4.5%	↑

Because of the small number of career/technical education teachers, middle school, data were not available for many surrounding states for one or both years. The wage gap narrowed between Wyoming and each state narrowed in Colorado and the U.S. as a whole, but widened for Nebraska and South Dakota.
Blank cells are not available or nondisclosable.

U.S.

Employment

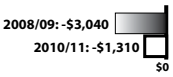
2008-09	2010-11	Change	%	
12,370	15,490	3,120	25.2%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$52,300	$56,510	$4,210	8.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,040	-5.5%	-$1,310	-2.3%



Colorado

Employment

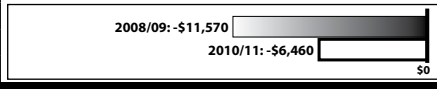
2008-09	2010-11	Change	%	
19	80	61	321.1%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$43,770	$51,360	$7,590	17.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$11,570	-20.9%	-$6,460	-11.2%



Idaho

Employment

2008-09	2010-11	Change	%

Average Annual Wage

2008-09	2010-11	Change	%

Comparison to Wyoming Wage

2008-09	%	2010-11	%

Montana

Employment

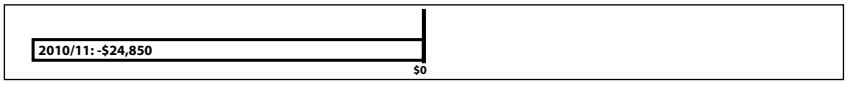
2008-09	2010-11	Change	%
	147	N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
	$32,970	N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
N/A	N/A	-$24,850	-43.0%



Nebraska

Employment

2008-09	2010-11	Change	%	
99	104	5	5.1%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$46,960	$47,940	$980	2.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$8,380	-15.1%	-$9,880	-17.1%

South Dakota

Employment

2008-09	2010-11	Change	%	
49	49	0	0.0%	--

Average Annual Wage

2008-09	2010-11	Change	%	
$42,170	$37,760	-$4,410	-10.5%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$13,170	-23.8%	-$20,060	-34.7%

Utah

Employment

2008-09	2010-11	Change	%
76		N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
$51,880		N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,460	-6.3%	N/A	N/A

Source: Occupational Employment Statistics.

Secondary School Teachers, Except Special & Career/Technical Education (25-2031)

Instruct students in secondary public or private schools in one or more subjects at the secondary level, such as English, mathematics, or social studies. May be designated according to subject matter specialty, such as typing instructors, commercial teachers, or English teachers. Exclude "Vocational Education Secondary School Teachers" (25-2032) and "Special Education Teachers" (25-2041 through 25-2043).

Wyoming

Employment

2008-09	2010-11	Change	%	
2,015	1,824	-191	-9.5%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$57,140	$58,130	$990	1.7%	↑

The average annual wage for secondary school teachers in the U.S., Colorado, Montana, and Nebraska increased at a greater rate than the average wage for secondary school teachers in Wyoming. However, Wyoming's teachers continued to earn considerably more than teachers in each of the surrounding states.
Blank cells are not available or nondisclosable.

U.S.

Employment

2008-09	2010-11	Change	%	
977,150	892,370	-84,780	-8.7%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,760	$57,440	$1,680	3.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,380	-2.4%	-$690	-1.2%

Colorado

Employment

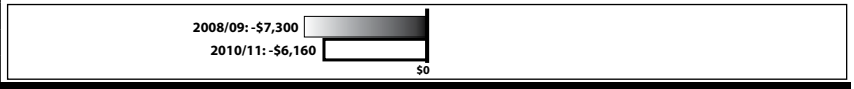
2008-09	2010-11	Change	%	
14,792	14,799	7	0.0%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$49,840	$51,970	$2,130	4.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$7,300	-12.8%	-$6,160	-10.6%



Idaho

Employment

2008-09	2010-11	Change	%	
6,004	4,257	-1,747	-29.1%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$51,940	$46,530	-$5,410	-10.4%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$5,200	-9.1%	-$11,600	-20.0%

Montana

Employment

2008-09	2010-11	Change	%	
4,155	3,948	-207	-5.0%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$39,890	$44,040	$4,150	10.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$17,250	-30.2%	-$14,090	-24.2%

Nebraska

Employment

2008-09	2010-11	Change	%	
7,087	6,497	-590	-8.3%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$44,760	$46,700	$1,940	4.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$12,380	-21.7%	-$11,430	-19.7%

South Dakota

Employment

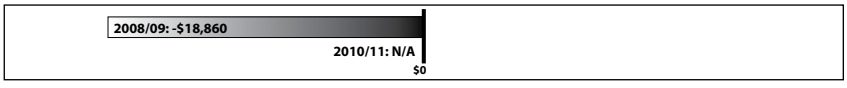
2008-09	2010-11	Change	%
3,351		N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
$38,280		N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$18,860	-33.0%	N/A	N/A



Utah

Employment

2008-09	2010-11	Change	%
6,459		N/A	N/A

Average Annual Wage

2008-09	2010-11	Change	%
$43,950		N/A	N/A

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$13,190	-23.1%	N/A	N/A

Source: Occupational Employment Statistics.

Vocational Education Teachers, Secondary School (25-2032)

Teach or instruct vocational or occupational subjects at the secondary school level.

Wyoming

Employment				
2008-09	2010-11	Change	%	↑
232	251	19	8.2%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$56,890	$57,670	$780	1.4%	

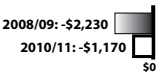
Vocational education teachers, secondary school, earned in all surrounding states earned considerably less than teachers in Wyoming. However, all surrounding states for which data were available closed the gap from 2008/09 to 2010/11.
Blank cells are not available or nondisclosable.

U.S.

Employment				
2008-09	2010-11	Change	%	↓
86,760	82,720	-4,040	-4.7%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$54,660	$56,500	$1,840	3.4%	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$2,230	-3.9%	-$1,170	-2.0%

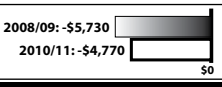


Colorado

Employment				
2008-09	2010-11	Change	%	↑
772	795	23	3.0%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$51,160	$52,900	$1,740	3.4%	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$5,730	-10.1%	-$4,770	-8.3%

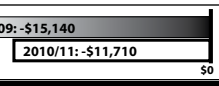


Idaho

Employment				
2008-09	2010-11	Change	%	↑
116	339	223	192.2%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$41,750	$45,960	$4,210	10.1%	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$15,140	-26.6%	-$11,710	-20.3%

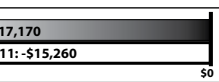


Montana

Employment				
2008-09	2010-11	Change	%	↓
269	187	-82	-30.5%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$39,720	$42,410	$2,690	6.8%	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$17,170	-30.2%	-$15,260	-26.5%

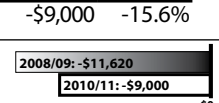


Nebraska

Employment				
2008-09	2010-11	Change	%	↓
495	483	-12	-2.4%	

Average Annual Wage				
2008-09	2010-11	Change	%	↑
$45,270	$48,670	$3,400	7.5%	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$11,620	-20.4%	-$9,000	-15.6%

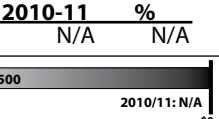


South Dakota

Employment				
2008-09	2010-11	Change	%	
309		N/A	N/A	

Average Annual Wage				
2008-09	2010-11	Change	%	
$38,390		N/A	N/A	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$18,500	-32.5%	N/A	N/A

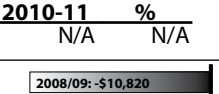


Utah

Employment				
2008-09	2010-11	Change	%	
459		N/A	N/A	

Average Annual Wage				
2008-09	2010-11	Change	%	
$46,070		N/A	N/A	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$10,820	-19.0%	N/A	N/A



Source: Occupational Employment Statistics.

Special Education Teachers, Preschool, Kindergarten, and Elementary School (25-2041)

Teach elementary and preschool school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

Wyoming

Employment				
2008-09	2010-11	Change	%	
599	548	-51	-8.5%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$55,390	$56,890	$1,500	2.7%	↑

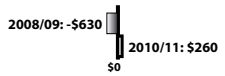
The average annual wage for special education teachers, preschool, kindergarten, and elementary school in the U.S. were lower than in Wyoming in 2008/09, but were greater than the average for Wyoming in 2010/11.
Blank cells are not available or nondisclosable.

U.S.

Employment				
2008-09	2010-11	Change	%	
199,290	191,000	-8,290	-4.2%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$54,760	$57,150	$2,390	4.4%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$630	-1.1%	$260	0.5%



Colorado

Employment				
2008-09	2010-11	Change	%	
3,020		N/A	N/A	

Average Annual Wage				
2008-09	2010-11	Change	%	
$51,650		N/A	N/A	

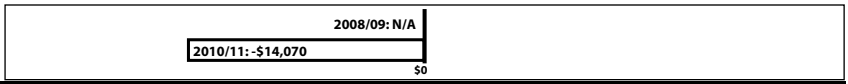
Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$3,740	-6.8%	N/A	N/A

Idaho

Employment				
2008-09	2010-11	Change	%	
	1,033	N/A	N/A	

Average Annual Wage				
2008-09	2010-11	Change	%	
	$42,820	N/A	N/A	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
N/A	N/A	-$14,070	-24.7%



Montana

Employment				
2008-09	2010-11	Change	%	
336	387	51	15.2%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$37,850	$41,110	$3,260	8.6%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$17,540	-31.7%	-$15,780	-27.7%

Nebraska

Employment				
2008-09	2010-11	Change	%	
1,609	1441	-168	-10.4%	↓

Average Annual Wage				
2008-09	2010-11	Change	%	
$43,310	$45,490	$2,180	5.0%	↑

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$12,080	-21.8%	-$11,400	-20.0%

South Dakota

Employment				
2008-09	2010-11	Change	%	
602	641	39	6.5%	↑

Average Annual Wage				
2008-09	2010-11	Change	%	
$37,950	$810	$810	2.1%	↑

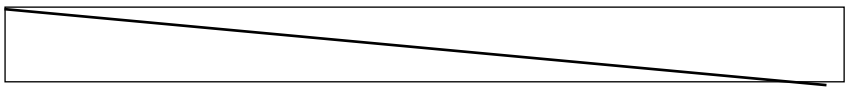
Comparison to Wyoming Wage			
2008-09	%	2010-11	%
-$17,440	-31.5%	-$18,130	-31.9%

Utah

Employment				
2008-09	2010-11	Change	%	
		N/A	N/A	

Average Annual Wage				
2008-09	2010-11	Change	%	
		N/A	N/A	

Comparison to Wyoming Wage			
2008-09	%	2010-11	%
N/A	N/A	N/A	N/A



Source: Occupational Employment Statistics.

Special Education Teachers, Middle School (25-2053)

Teach middle school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

Wyoming

Employment

2008-09	2010-11	Change	%	
304	209	-95	-31.3%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$56,060	$61,800	$5,740	10.2%	↑

Of the surrounding states, only Idaho narrowed the wage gap for special education teachers, middle school, compared to those in Wyoming. Even so, Idaho's middle school special education teachers earned 17.4% less (-10,740) than those in Wyoming in 2010/11.
Blank cells are not available or nondisclosable.

U.S.

Employment

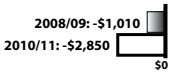
2008-09	2010-11	Change	%	
95,910	93,780	-2,130	-2.2%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,050	$58,950	$3,900	7.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,010	-1.8%	-$2,850	-4.6%



Colorado

Employment

2008-09	2010-11	Change	%	
1,487	1,649	162	10.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$51,330	$52,250	$920	1.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,730	-8.4%	-$9,550	-15.5%

Idaho

Employment

2008-09	2010-11	Change	%	
51	130	79	154.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$44,370	$51,060	$6,690	15.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$11,690	-20.9%	-$10,740	-17.4%

Montana

Employment

2008-09	2010-11	Change	%	
196	152	-44	-22.4%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$36,620	$41,390	$4,770	13.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$19,440	-34.7%	-$20,410	-33.0%

Nebraska

Employment

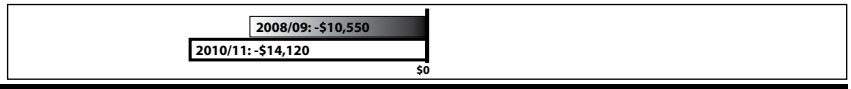
2008-09	2010-11	Change	%	
632	503	-129	-20.4%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$45,510	$47,680	$2,170	4.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$10,550	-18.8%	-$14,120	-22.8%



South Dakota

Employment

2008-09	2010-11	Change	%	
273	259	-14	-5.1%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$38,630	$40,400	$1,770	4.6%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$17,430	-31.1%	-$21,400	-34.6%

Utah

Employment

2008-09	2010-11	Change	%	
418	295	-123	-29.4%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$48,270	$50,180	$1,910	4.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$7,790	-13.9%	-$11,620	-18.8%

Source: Occupational Employment Statistics.

Special Education Teachers, Secondary School (25-2054)

Teach secondary school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

Wyoming

Employment

2008-09	2010-11	Change	%	
288	283	-5	-1.7%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$56,370	$56,390	$20	0.0%	--

Special education teachers, secondary school, in Wyoming earned more than those in surrounding states in 2008/09 and 2010/11, but earned less than the national average for both years. .
Blank cells are not available or nondisclosable.

U.S.

Employment

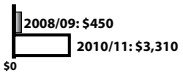
2008-09	2010-11	Change	%	
132,470	119,830	-12,640	-9.5%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$56,820	$59,700	$2,880	5.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$450	0.8%	$3,310	5.9%



Colorado

Employment

2008-09	2010-11	Change	%	
1,643		N/A	N/A	

Average Annual Wage

2008-09	2010-11	Change	%	
$52,850		N/A	N/A	

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,520	-6.2%	N/A	N/A

Idaho

Employment

2008-09	2010-11	Change	%	
92	268	176	191.3%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$42,630	$45,630	$3,000	7.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$13,740	-24.4%	-$10,760	-19.1%

Montana

Employment

2008-09	2010-11	Change	%	
436	533	97	22.2%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$40,970	$43,530	$2,560	6.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$15,400	-27.3%	-$12,860	-22.8%

Nebraska

Employment

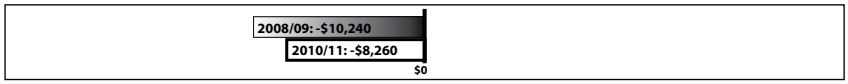
2008-09	2010-11	Change	%	
817	757	-60	-7.3%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$46,130	$48,130	$2,000	4.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$10,240	-18.2%	-$8,260	-14.6%



South Dakota

Employment

2008-09	2010-11	Change	%	
405	385	-20	-4.9%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$38,400	$40,480	$2,080	5.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$17,970	-31.9%	-$15,910	-28.2%

Utah

Employment

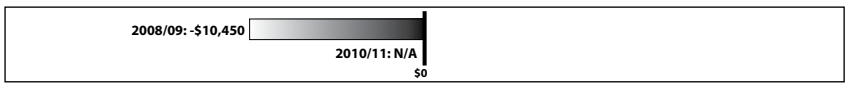
2008-09	2010-11	Change	%	
631		N/A	N/A	

Average Annual Wage

2008-09	2010-11	Change	%	
$45,920		N/A	N/A	

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$10,450	-18.5%	N/A	N/A



Source: Occupational Employment Statistics.

Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11

This group is a composite of all teachers involved in direct instruction in the classroom.

Wyoming

Employment

2008-09	2010-11	Change	%	
7,156	7,344	188	2.6%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$55,784	$57,284	$1,500	2.7%	↑

The average annual wage for teachers in most counties in Wyoming increased from 2008-09 to 2010-11, with two exceptions: Hot Springs (-1.8%) and Niobrara (-9.4%). Teachers in Campbell ($61,206), Laramie ($59,710), Lincoln ($58,685), Park ($59,204), Sheridan ($58,784), Sublette ($59,213), Sweetwater ($58,331), and Teton ($63,926) counties were paid a higher annual wage than the statewide average ($57,284) in 2010-11.

Albany County

Employment

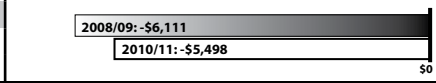
2008-09	2010-11	Change	%	
331	347	16	4.8%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$49,673	$51,786	$2,113	4.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$6,111	-11.0%	-$5,498	-9.6%



Big Horn County

Employment

2008-09	2010-11	Change	%	
210	208	-2	-1.0%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$51,140	$53,512	$2,372	4.6%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,644	-8.3%	-$3,771	-6.6%

Campbell County

Employment

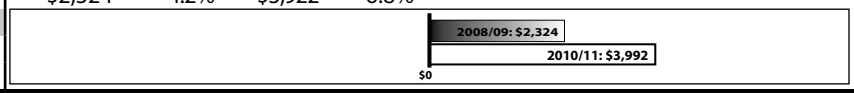
2008-09	2010-11	Change	%	
613	655	42	6.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$58,108	$61,206	$3,098	5.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$2,324	4.2%	$3,922	6.8%



Carbon County

Employment

2008-09	2010-11	Change	%	
242	240	-2	-0.8%	↓

Average Annual Wage

2009	2011	Change	%	
$49,923	$53,822	$3,899	7.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$5,861	-10.5%	-$3,461	-6.0%

Converse County

Employment

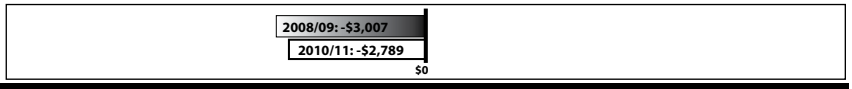
2008-09	2010-11	Change	%	
216	215	-1	-0.5%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$52,777	$54,495	$1,718	3.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,007	-5.4%	-$2,789	-4.9%



Crook County

Employment

2008-09	2010-11	Change	%	
102	105	3	2.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$51,232	$52,764	$1,532	3.0%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,552	-8.2%	-$4,519	-7.9%

Fremont County

Employment

2008-09	2010-11	Change	%	
568	564	-4	-0.7%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$55,135	$55,609	$474	0.9%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$649	-1.2%	-$1,674	-2.9%

Source: WY Department of Education Contract Files.

Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11 (continued)

This group is a composite of all teachers involved in direct instruction in the classroom.

Goshen County

Employment

2008-09	2010-11	Change	%	
161	171	10	6.2%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$55,825	$56,980	$1,155	2.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$41	0.1%	-$304	-0.5%

Hot Springs County

Employment

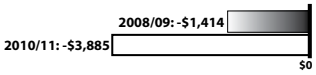
2008-09	2010-11	Change	%	
59	66	7	11.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$54,370	$53,399	-$971	-1.8%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,414	-2.5%	-$3,885	-6.8%



Johnson County

Employment

2008-09	2010-11	Change	%	
118	121	3	2.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$52,259	$54,463	$2,204	4.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$3,525	-6.3%	-$2,820	-4.9%

Laramie County

Employment

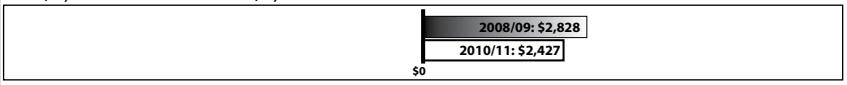
2008-09	2010-11	Change	%	
1,082	1,087	5	0.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$58,612	$59,710	$1,098	1.9%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$2,828	5.1%	$2,427	4.2%



Lincoln County

Employment

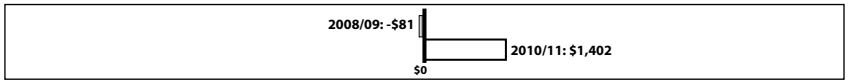
2008-09	2010-11	Change	%	
252	244	-8	-3.2%	↓

Average Annual Wage

2009	2011	Change	%	
$55,703	$58,685	$2,982	5.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$81	-0.1%	$1,402	2.4%



Natrona County

Employment

2008-09	2010-11	Change	%	
841	879	38	4.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$56,738	$57,150	$412	0.7%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$954	1.7%	-$134	-0.2%

Niobrara County

Employment

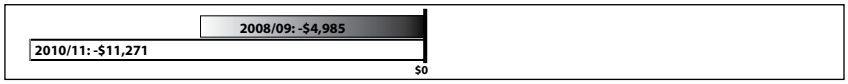
2008-09	2010-11	Change	%	
37	59	22	59.5%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$50,799	$46,012	-$4,787	-9.4%	↓

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,985	-8.9%	-$11,271	-19.7%



Park County

Employment

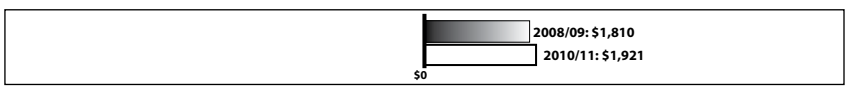
2008-09	2010-11	Change	%	
314	323	9	2.9%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$57,594	$59,204	$1,610	2.8%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$1,810	3.2%	$1,921	3.4%



Source: WY Department of Education Contract Files.

Total, All Primary, Secondary, & Special Education School Teachers (25-2000) in Public Schools in Wyoming and its 23 Counties, 2008/09 and 2010/11 (continued)

This group is a composite of all teachers involved in direct instruction in the classroom.

Platte County

Employment

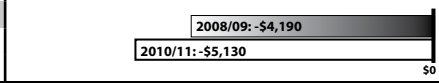
2008-09	2010-11	Change	%	
151	143	-8	-5.3%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$51,594	$52,153	$559	1.1%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$4,190	-7.5%	-$5,130	-9.0%



Sheridan County

Employment

2008-09	2010-11	Change	%	
377	371	-6	-1.6%	↓

Average Annual Wage

2008-09	2010-11	Change	%	
$57,979	$58,784	$805	1.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$2,195	3.9%	$1,500	2.6%

Sublette County

Employment

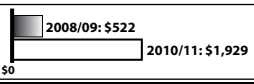
2008-09	2010-11	Change	%	
130	140	10	7.7%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$56,306	$59,213	$2,907	5.2%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$522	0.9%	$1,929	3.4%



Sweetwater County

Employment

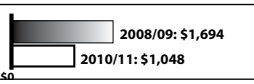
2008-09	2010-11	Change	%	
563	589	26	4.6%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$57,478	$58,331	$853	1.5%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$1,694	3.0%	$1,048	1.8%



Teton County

Employment

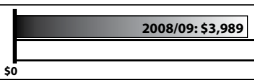
2008-09	2010-11	Change	%	
204	220	16	7.8%	↑

Average Annual Wage

2009	2011	Change	%	
$59,773	$63,926	$4,153	6.9%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
$3,989	7.2%	$6,642	11.6%



Uinta County

Employment

2008-09	2010-11	Change	%	
359	362	3	0.8%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$54,069	$54,777	$708	1.3%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$1,715	-3.1%	-$2,506	-4.4%

Washakie County

Employment

2008-09	2010-11	Change	%	
125	134	9	7.2%	↑

Average Annual Wage

2008-09	2010-11	Change	%	
$54,857	$56,715	$1,858	3.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$927	-1.7%	-$569	-1.0%

Weston County

Employment

2008-09	2010-11	Change	%	
101	101	0	0.0%	--

Average Annual Wage

2008-09	2010-11	Change	%	
$50,399	$53,491	$3,205	6.4%	↑

Comparison to Wyoming Wage

2008-09	%	2010-11	%
-$5,385	-9.7%	-$3,792	-6.6%

Source: WY Department of Education Contract Files.

Wyoming Department of Workforce Services
Research & Planning
P.O. Box 2760
Casper, WY 82601

Official Business
Penalty for Private Use $300
Return Service Requested

Table 4-5: Public School Contracted Individuals that Leave District Contracts by Destination State and Industry for Combined 2007/08 & 2010/11 for All Three Digit Occupational Groups.

soccode	soctitle	rowname	00-Total	01-Natural Rescources & Mining (11, 21)	02-Construction (23)	03-Manufacturing (31, 32, 33)	04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	05-Retail Trade (44, 45)	06-Information (51)	07-Financial Activities (52, 53)	08-Professional & Business Services (54, 55, 56)	09a-Public Schools, Educational Services (6111-3)	09b-Educational Services (61)	10-Health Care & Social Assistance (62)	11-Leisure & Hospitality (71, 72)	12-Other Services Except Public Administration (81)	13-Public Administration (92)	14-Nonclassified Industry (99)	No Wages in WR
Total	Total	N	9,971	201	135	76	185	301	56	134	224	4,001	345	767	279	100	498	5	2,362
		Avg District $	$30,136	$16,535	$18,405	$20,128	$16,800	$20,520	$18,801	$17,583	$23,189	$33,000	$32,546	$24,346	$18,311	$24,428	$26,873	$20,160	$35,796
		Avg Destination $	$26,373	$45,407	$30,758	$40,654	$36,126	$18,102	$23,663	$29,636	$23,260	$23,529	$28,437	$29,482	$14,465	$21,869	$41,833	$15,853	
11-1000	Top Executives	N	35									18	ND				ND		14
		Avg District $	$116,277									$111,306	ND				ND		$117,760
		Avg Destination $	$100,334									$105,752	ND				ND		
11-3000	Operations Specialties Managers	N	22									7		ND			ND		5
		Avg District $	$71,612									$64,521		ND			ND		$85,909
		Avg Destination $	$69,407									$57,360		ND			ND		
11-9000	Other Management Occupations	N	210	ND		ND		ND			ND	101	10	15	ND		18		60
		Avg District $	$82,636	ND		ND		ND			ND	$82,185	$86,557	$68,937	ND		$74,829		$90,127
		Avg Destination $	$61,914	ND		ND		ND			ND	$59,764	$57,430	$70,604	ND		$76,871		
13-1000	Business Operations Specialists	N	123	ND		ND		ND	ND		4	55	6	8	ND		9		35
		Avg District $	$57,824	ND		ND		ND	ND		$59,407	$57,687	$59,508	$52,821	ND		$65,240		$57,948
		Avg Destination $	$38,362	ND		ND		ND	ND		$20,513	$32,730	$34,680	$46,884	ND		$72,750		
15-1000	Computer Specialists	N	85	ND	ND	ND	ND	ND	ND	ND	5	32	7	ND	ND		ND		19
		Avg District $	$41,745	ND	ND	ND	ND	ND	ND	ND	$40,042	$44,610	$25,995	ND	ND		ND		$48,074
		Avg Destination $	$38,534	ND	ND	ND	ND	ND	ND	ND	$23,745	$42,484	$42,189	ND	ND		ND		
19-3000	Social Scientists and Related Workers	N	67									28		6			5		28
		Avg District $	$69,264									$60,111		$74,912			$75,300		$76,128
		Avg Destination $	$62,700									$56,220		$79,383			$78,967		
21-1000	Counselors, Social Workers, and Other Community and Social Service Specialists	N	225	ND	ND	ND	ND	ND			5	87	5	33	ND	ND	16		62
		Avg District $	$53,208	ND	ND	ND	ND	ND			$56,944	$55,073	$54,293	$42,619	ND	ND	$50,497		$57,039
		Avg Destination $	$38,969	ND	ND	ND	ND	ND			$12,592	$38,572	$25,950	$41,037	ND	ND	$61,843		
25-2000	Primary, Secondary, and Special Education School Teachers	N	2,551	24	7	8	14	35	ND	16	34	1,315	145	124	25	19	75	ND	669
		Avg District $	$52,843	$48,519	$49,277	$48,887	$48,379	$56,316	ND	$54,451	$51,174	$52,021	$47,178	$46,035	$52,225	$55,603	$55,318	ND	$56,665
		Avg Destination $	$31,595	$42,228	$34,963	$24,064	$34,561	$16,440	ND	$18,582	$19,285	$32,446	$27,397	$31,955	$11,875	$22,366	$45,503	ND	
25-3000	Other Teachers and Instructors	N	277	ND	ND	ND	8	19	ND	8	6	122	7	35	7		16		38
		Avg District $	$18,971	ND	ND	ND	$3,767	$4,222	ND	$6,275	$15,293	$20,725	$10,390	$15,765	$3,899		$11,821		$37,606
		Avg Destination $	$25,282	ND	ND	ND	$44,907	$25,323	ND	$28,182	$19,387	$17,681	$26,841	$34,080	$19,396		$40,099		
25-4000	Librarians, Curators, and Archivists	N	64									28	ND				ND		26
		Avg District $	$58,547									$55,315	ND				ND		$63,192
		Avg Destination $	$33,283									$33,888	ND				ND		
25-9000	Other Education, Training, and Library Occupations	N	2,478	29	26	ND	34	91	23	44	46	945	61	266	83	32	122	ND	548
		Avg District $	$15,659	$15,320	$13,228	ND	$15,146	$14,504	$11,880	$14,170	$14,166	$16,243	$15,789	$14,695	$14,727	$14,675	$15,128	ND	$16,116
		Avg Destination $	$18,325	$38,958	$23,507	ND	$23,215	$16,301	$20,670	$26,708	$19,630	$14,829	$20,934	$22,417	$12,427	$17,413	$29,269	ND	
27-2000	Entertainers and Performers, Sports and Related Workers	N	980	82	37	18	48	28	ND	30	37	350	44	62	40	13	103	ND	69
		Avg District $	$4,594	$4,041	$4,079	$5,895	$4,663	$4,972	ND	$4,295	$4,245	$4,812	$4,639	$4,271	$4,533	$4,603	$4,733	ND	$4,367
		Avg Destination $	$31,819	$51,305	$43,326	$70,435	$58,638	$38,466	ND	$48,982	$43,165	$9,761	$42,090	$42,672	$23,111	$31,547	$48,932	ND	
27-3000	Media and Communication Workers	N	22								ND	10	ND	5					ND
		Avg District $	$21,885								ND	$19,648	ND	$28,290					ND
		Avg Destination $	$26,676								ND	$25,930	ND	$25,693					
29-1000	Health Diagnosing and Treating Practitioners	N	183	ND	ND			ND		ND	ND	59	7	40		ND	9		50
		Avg District $	$47,347	ND	ND			ND		ND	ND	$51,748	$46,063	$39,607		ND	$47,371		$49,191
		Avg Destination $	$36,772	ND	ND			ND		ND	ND	$31,237	$32,858	$42,090		ND	$55,416		
29-2000	Health Technologists and Technicians	N	6									ND	ND						ND
		Avg District $	$23,222									ND	ND						ND

Table 4-5: Public School Contracted Individuals that Leave District Contracts by Destination State and Industry for Combined 2007/08 & 2010/11 for All Three Digit Occupational Groups.

soccode	soctitle	rowname	00-Total	01-Natural Rescources & Mining (11, 21)	02-Construction (23)	03-Manufacturing (31, 32, 33)	04-Wholesale Trade, Transportation, & Utilities (22, 42, 48, 49)	05-Retail Trade (44, 45)	06-Information (51)	07-Financial Activities (52, 53)	08-Professional & Business Services (54, 55, 56)	09a-Public Schools, Educational Services (6111-3)	09b-Educational Services (61)	10-Health Care & Social Assistance (62)	11-Leisure & Hospitality (71, 72)	12-Other Services Except Public Administration (81)	13-Public Administration (92)	14-Nonclassified Industry (99)	No Wages in WR
		Avg Destination $	$22,937									ND	ND						
33-9000	Other Protective Service Workers	N	283	ND	7		5	9	ND	5	6	103	9	32	20	ND	9		63
		Avg District $	$8,507	ND	$5,078		$6,873	$3,672	ND	$3,513	$7,582	$9,823	$6,703	$7,929	$6,435	ND	$6,261		$9,039
		Avg Destination $	$14,140	ND	$27,781		$14,384	$11,187	ND	$16,807	$15,820	$10,391	$12,039	$21,138	$8,409	ND	$27,298		
35-1000	Supervisors, Food Preparation and Serving Workers	N	43	ND			ND	ND		ND		8		ND	ND		ND	ND	22
		Avg District $	$20,520	ND			ND	ND		ND		$19,198		ND	ND		ND	ND	$20,779
		Avg Destination $	$17,027	ND			ND	ND		ND		$8,450		ND	ND		ND	ND	
35-2000	Cooks and Food Preparation Workers	N	425	6	5	ND	11	27	ND	4	11	137	ND	24	26	7	11		138
		Avg District $	$12,385	$8,309	$6,735	ND	$10,088	$10,546	ND	$8,093	$13,825	$13,081	ND	$11,563	$11,604	$11,441	$12,354		$12,479
		Avg Destination $	$12,763	$19,542	$15,383	ND	$18,640	$12,486	ND	$19,105	$11,759	$10,805	ND	$15,810	$12,745	$17,343	$16,962		
37-1000	Supervisors, Building and Grounds Cleaning and Maintenance Workers	N	56	ND	ND	ND	ND	ND		ND		16		ND	ND	ND	ND		21
		Avg District $	$35,800	ND	ND	ND	ND	ND		ND		$40,326		ND	ND	ND	ND		$37,119
		Avg Destination $	$18,925	ND	ND	ND	ND	ND		ND		$17,372		ND	ND	ND	ND		
37-2000	Building Cleaning and Pest Control Workers	N	277	9	10	ND	8	15	ND	ND	13	70	6	13	22	5	11		71
		Avg District $	$23,900	$23,696	$27,767	ND	$23,895	$22,773	ND	ND	$22,848	$24,474	$17,497	$19,642	$23,179	$26,785	$23,891		$24,452
		Avg Destination $	$19,052	$46,498	$21,052	ND	$29,094	$15,071	ND	ND	$13,816	$17,982	$16,442	$16,909	$15,230	$7,896	$22,703		
37-3000	Grounds Maintenance Workers	N	8	ND				ND				ND					ND		ND
		Avg District $	$26,134	ND				ND				ND					ND		ND
		Avg Destination $	$18,585	ND				ND				ND					ND		
43-4000	Information and Record Clerks	N	88	ND			ND	ND	ND		ND	41	ND	ND	ND	ND	ND		25
		Avg District $	$17,967	ND			ND	ND	ND		ND	$18,489	ND	ND	ND	ND	ND		$18,289
		Avg Destination $	$15,635	ND			ND	ND	ND		ND	$13,267	ND	ND	ND	ND	ND		
43-6000	Secretaries and Administrative Assistants	N	440	7	7	ND	5	8	ND	7	16	153	15	34	10	7	29		109
		Avg District $	$26,355	$28,360	$27,475	ND	$33,530	$21,864	ND	$24,482	$26,151	$27,147	$22,119	$24,076	$29,616	$31,184	$23,191		$26,945
		Avg Destination $	$21,705	$32,268	$25,374	ND	$26,525	$15,732	ND	$28,917	$16,655	$17,781	$28,173	$28,563	$14,003	$26,953	$30,422		
43-9000	Other Office and Administrative Support Workers	N	47					ND		ND	ND	11		ND	ND		ND		12
		Avg District $	$29,300					ND		ND	ND	$28,290		ND	ND		ND		$25,855
		Avg Destination $	$20,877					ND		ND	ND	$15,834		ND	ND		ND		
49-1000	Supervisors of installation, maintenance, and repair workers	N	31		ND		ND				ND	7		ND			ND		16
		Avg District $	$57,843		ND		ND				ND	$53,084		ND			ND		$64,619
		Avg Destination $	$53,783		ND		ND				ND	$46,746		ND			ND		
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	N	32	ND	ND	ND	5	5			ND	7				ND	ND		6
		Avg District $	$41,421	ND	ND	ND	$37,283	$38,843			ND	$47,419				ND	ND		$37,636
		Avg Destination $	$35,199	ND	ND	ND	$49,803	$18,488			ND	$35,680				ND	ND		
49-9000	Other Installation, Maintenance, and Repair Occupations	N	359	5	13	4	11	21	ND	6	11	97	ND	28	15	ND	23		95
		Avg District $	$28,079	$21,365	$30,873	$25,988	$25,622	$25,079	ND	$27,131	$26,267	$28,670	ND	$24,640	$26,412	ND	$27,963		$30,954
		Avg Destination $	$22,151	$28,517	$25,284	$47,131	$29,449	$16,205	ND	$18,705	$20,394	$19,571	ND	$18,969	$14,001	ND	$39,028		
53-1000	Supervisors, Transportation and Material Moving Workers	N	12									6		ND			ND		4
		Avg District $	$58,085									$52,177		ND			ND		$68,629
		Avg Destination $	$26,927									$24,953		ND			ND		
53-3000	Motor Vehicle Operators	N	542	22	10	9	27	21	ND	5	22	181	8	27	15	ND	18		150
		Avg District $	$14,732	$11,304	$12,023	$12,444	$14,670	$12,808	ND	$9,745	$14,511	$15,890	$14,358	$12,292	$13,923	ND	$12,389		$15,374
		Avg Destination $	$18,114	$45,915	$31,051	$35,242	$24,532	$14,800	ND	$21,324	$23,715	$11,366	$13,930	$15,825	$15,661	ND	$33,439		

Appendix D, Table 1: Commuting Patterns for All Occupations in Public Schools in Wyoming, 2007/08 to 2011/12

School Year	Employment County	Total Contracts	Intracounty Workers		Intercounty Workers		Interstate Workers		Total, Intercounty and Interstate Workers	
			N	%	N	%	N	%	N	%
2007/08	**Total**	**17,055**	**15,633**	**91.7**	**1,006**	**5.9**	**416**	**2.4**	**1,422**	**8.3**
	Albany	781	683	87.5	60	7.7	38	4.9	98	12.5
	Big Horn	500	422	84.4	69	13.8	9	1.8	78	15.6
	Campbell	1,515	1,409	93	89	5.9	17	1.1	106	7
	Carbon	542	478	88.2	38	7.0	26	4.8	64	11.8
	Converse	515	456	88.5	44	8.5	15	2.9	59	11.5
	Crook	265	234	88.3	28	10.6	3	1.1	31	11.7
	Fremont	1,411	1,323	93.8	52	3.7	36	2.6	88	6.2
	Goshen	393	360	91.6	12	3.1	21	5.3	33	8.4
	Hot Springs	151	129	85.4	11	7.3	11	7.3	22	14.6
	Johnson	280	256	91.4	20	7.1	4	1.4	24	8.6
	Laramie	2,359	2,227	94.4	75	3.2	57	2.4	132	5.6
	Lincoln	651	609	93.5	26	4.0	16	2.5	42	6.5
	Natrona	2,113	2,003	94.8	78	3.7	32	1.5	110	5.2
	Niobrara	92	81	88	7	7.6	4	4.3	11	12
	Park	772	712	92.2	41	5.3	19	2.5	60	7.8
	Platte	371	337	90.8	29	7.8	5	1.3	34	9.2
	Sheridan	851	776	91.2	59	6.9	16	1.9	75	8.8
	Sublette	299	244	81.6	48	16.1	7	2.3	55	18.4
	Sweetwater	1,338	1,241	92.8	72	5.4	25	1.9	97	7.2
	Teton	433	366	84.5	40	9.2	27	6.2	67	15.5
	Uinta	851	775	91.1	63	7.4	13	1.5	76	8.9
	Washakie	328	295	89.9	21	6.4	12	3.7	33	10.1
	Weston	244	217	88.9	24	9.8	3	1.2	27	11.1
2008/09	**Total**	**17,460**	**15,871**	**90.9**	**1,005**	**5.8**	**584**	**3.3**	**1,589**	**9.1**
	Albany	807	706	87.5	55	6.8	46	5.7	101	12.5
	Big Horn	506	422	83.4	75	14.8	9	1.8	84	16.6
	Campbell	1,542	1,419	92	102	6.6	21	1.4	123	8
	Carbon	545	339	62.2	14	2.6	192	35.2	206	37.8
	Converse	523	450	86	53	10.1	20	3.8	73	14
	Crook	267	230	86.1	32	12.0	5	1.9	37	13.9
	Fremont	1,419	1,328	93.6	55	3.9	36	2.5	91	6.4
	Goshen	398	359	90.2	16	4.0	23	5.8	39	9.8
	Hot Springs	154	139	90.3	11	7.1	4	2.6	15	9.7
	Johnson	286	264	92.3	19	6.6	3	1.0	22	7.7
	Laramie	2,412	2,275	94.3	72	3.0	65	2.7	137	5.7
	Lincoln	666	631	94.7	26	3.9	9	1.4	35	5.3
	Natrona	2,118	2,028	95.8	73	3.4	17	0.8	90	4.2
	Niobrara	91	82	90.1	6	6.6	3	3.3	9	9.9
	Park	799	737	92.2	37	4.6	25	3.1	62	7.8
	Platte	371	343	92.5	24	6.5	4	1.1	28	7.5
	Sheridan	866	793	91.6	57	6.6	16	1.8	73	8.4
	Sublette	325	274	84.3	47	14.5	4	1.2	51	15.7
	Sweetwater	1,446	1,333	92.2	91	6.3	22	1.5	113	7.8

	Teton	439	388	88.4	30	6.8	21	4.8	51	11.6
	Uinta	881	798	90.6	64	7.3	19	2.2	83	9.4
	Washakie	338	306	90.5	20	5.9	12	3.6	32	9.5
	Weston	261	227	87	26	10.0	8	3.1	34	13
2009/10	**Total**	**18,328**	**16,571**	**90.4**	**1,013**	**5.5**	**744**	**4.1**	**1,757**	**9.6**
	Albany	844	729	86.4	43	5.1	72	8.5	115	13.6
	Big Horn	508	425	83.7	72	14.2	11	2.2	83	16.3
	Campbell	1,658	1,511	91.1	99	6.0	48	2.9	147	8.9
	Carbon	574	507	88.3	31	5.4	36	6.3	67	11.7
	Converse	537	479	89.2	42	7.8	16	3.0	58	10.8
	Crook	261	230	88.1	28	10.7	3	1.1	31	11.9
	Fremont	1,472	1,361	92.5	66	4.5	45	3.1	111	7.5
	Goshen	452	353	78.1	9	2.0	90	19.9	99	21.9
	Hot Springs	188	142	75.5	14	7.4	32	17.0	46	24.5
	Johnson	299	279	93.3	13	4.3	7	2.3	20	6.7
	Laramie	2,482	2,305	92.9	80	3.2	97	3.9	177	7.1
	Lincoln	694	651	93.8	29	4.2	14	2.0	43	6.2
	Natrona	2,247	2,156	96	78	3.5	13	0.6	91	4
	Niobrara	105	81	77.1	22	21.0	2	1.9	24	22.9
	Park	828	765	92.4	38	4.6	25	3.0	63	7.6
	Platte	373	347	93	20	5.4	6	1.6	26	7
	Sheridan	902	818	90.7	50	5.5	34	3.8	84	9.3
	Sublette	341	283	83	49	14.4	9	2.6	58	17
	Sweetwater	1,530	1,419	92.7	83	5.4	28	1.8	111	7.3
	Teton	517	388	75	30	5.8	99	19.1	129	25
	Uinta	896	812	90.6	62	6.9	22	2.5	84	9.4
	Washakie	360	303	84.2	29	8.1	28	7.8	57	15.8
	Weston	260	227	87.3	26	10.0	7	2.7	33	12.7
2010/11	**Total**	**18,438**	**16,640**	**90.2**	**1,044**	**5.7**	**754**	**4.1**	**1,798**	**9.8**
	Albany	853	732	85.8	56	6.6	65	7.6	121	14.2
	Big Horn	509	419	82.3	75	14.7	15	2.9	90	17.7
	Campbell	1,717	1,532	89.2	111	6.5	74	4.3	185	10.8
	Carbon	594	527	88.7	36	6.1	31	5.2	67	11.3
	Converse	532	483	90.8	36	6.8	13	2.4	49	9.2
	Crook	265	229	86.4	30	11.3	6	2.3	36	13.6
	Fremont	1,484	1,377	92.8	55	3.7	52	3.5	107	7.2
	Goshen	448	361	80.6	24	5.4	63	14.1	87	19.4
	Hot Springs	206	156	75.7	17	8.3	33	16.0	50	24.3
	Johnson	302	280	92.7	13	4.3	9	3.0	22	7.3
	Laramie	2,475	2,302	93	83	3.4	90	3.6	173	7
	Lincoln	663	623	94	29	4.4	11	1.7	40	6
	Natrona	2,227	2,148	96.5	66	3.0	13	0.6	79	3.5
	Niobrara	117	86	73.5	28	23.9	3	2.6	31	26.5
	Park	842	781	92.8	37	4.4	24	2.9	61	7.2
	Platte	371	340	91.6	23	6.2	8	2.2	31	8.4
	Sheridan	912	820	89.9	53	5.8	39	4.3	92	10.1
	Sublette	347	291	83.9	41	11.8	15	4.3	56	16.1
	Sweetwater	1,538	1,421	92.4	81	5.3	36	2.3	117	7.6
	Teton	518	385	74.3	39	7.5	94	18.1	133	25.7
	Uinta	898	807	89.9	64	7.1	27	3.0	91	10.1
	Washakie	366	311	85	25	6.8	30	8.2	55	15

	Weston	254	229	90.2	22	8.7	3	1.2	25	9.8
2011/12	**Total**	**18,316**	**16,469**	**89.9**	**1,148**	**6.3**	**699**	**3.8**	**1,847**	**10.1**
	Albany	777	675	86.9	48	6.2	54	6.9	102	13.1
	Big Horn	515	419	81.4	81	15.7	15	2.9	96	18.6
	Campbell	1,658	1,509	91	120	7.2	29	1.7	149	9
	Carbon	605	537	88.8	41	6.8	27	4.5	68	11.2
	Converse	541	478	88.4	46	8.5	17	3.1	63	11.6
	Crook	278	238	85.6	34	12.2	6	2.2	40	14.4
	Fremont	1,502	1,378	91.7	63	4.2	61	4.1	124	8.3
	Goshen	416	366	88	27	6.5	23	5.5	50	12
	Hot Springs	182	152	83.5	16	8.8	14	7.7	30	16.5
	Johnson	307	283	92.2	20	6.5	4	1.3	24	7.8
	Laramie	2,470	2,310	93.5	80	3.2	80	3.2	160	6.5
	Lincoln	653	611	93.6	34	5.2	8	1.2	42	6.4
	Natrona	2,260	2,180	96.5	69	3.1	11	0.5	80	3.5
	Niobrara	121	88	72.7	32	26.4	1	0.8	33	27.3
	Park	848	791	93.3	38	4.5	19	2.2	57	6.7
	Platte	368	335	91	26	7.1	7	1.9	33	9
	Sheridan	888	806	90.8	58	6.5	24	2.7	82	9.2
	Sublette	360	294	81.7	51	14.2	15	4.2	66	18.3
	Sweetwater	1,585	1,441	90.9	101	6.4	43	2.7	144	9.1
	Teton	457	392	85.8	39	8.5	26	5.7	65	14.2
	Uinta	914	660	72.2	65	7.1	189	20.7	254	27.8
	Washakie	345	299	86.7	28	8.1	18	5.2	46	13.3
	Weston	266	227	85.3	31	11.7	8	3.0	39	14.7

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Appendix D,Table2: Commuting Patterns for All Primary, Secondary, & Special Education School Teachers (SOC 25-2000) in Public Schools in Wyoming, 2007/08 to 2011/12

School Year	Employment County	Total Teacher Contracts	Intracounty Workers		Intercounty Workers		Interstate Workers		Total, Intercounty and Interstate Workers	
			N	%	N	%	N	%	N	%
2007/08	**Total**	**7,065**	**6,416**	**90.8**	**538**	**7.6**	**111**	**1.6**	**649**	**9.2**
	Albany	327	290	88.7	21	6.4	16	4.9	37	11.3
	Big Horn	212	166	78.3	44	20.8	2	0.9	46	21.7
	Campbell	603	551	91.4	49	8.1	3	0.5	52	8.6
	Carbon	236	207	87.7	23	9.7	6	2.5	29	12.3
	Converse	213	182	85.4	27	12.7	4	1.9	31	14.6
	Crook	100	77	77	21	21.0	2	2.0	23	23.0
	Fremont	561	527	93.9	27	4.8	7	1.2	34	6.1
	Goshen	163	145	89	10	6.1	8	4.9	18	11.0
	Hot Springs	58	50	86.2	6	10.3	2	3.4	8	13.8
	Johnson	116	105	90.5	11	9.5	0	0.0	11	9.5
	Laramie	1,090	1,016	93.2	48	4.4	26	2.4	74	6.8
	Lincoln	249	234	94	14	5.6	1	0.4	15	6.0
	Natrona	832	785	94.4	40	4.8	7	0.8	47	5.6
	Niobrara	39	36	92.3	3	7.7	0	0.0	3	7.7
	Park	308	288	93.5	17	5.5	3	1.0	20	6.5
	Platte	155	140	90.3	15	9.7	0	0.0	15	9.7
	Sheridan	376	347	92.3	25	6.6	4	1.1	29	7.7
	Sublette	121	99	81.8	21	17.4	1	0.8	22	18.2
	Sweetwater	534	484	90.6	42	7.9	8	1.5	50	9.4
	Teton	198	177	89.4	16	8.1	5	2.5	21	10.6
	Uinta	352	312	88.6	39	11.1	1	0.3	40	11.4
	Washakie	123	108	87.8	10	8.1	5	4.1	15	12.2
	Weston	99	90	90.9	9	9.1	0	0.0	9	9.1
2008/09	**Total**	**7,156**	**6,375**	**89.1**	**575**	**8.0**	**206**	**2.9**	**781**	**10.9**
	Albany	331	291	87.9	20	6.0	20	6.0	40	12.1
	Big Horn	210	164	78.1	46	21.9	0	0.0	46	21.9
	Campbell	613	555	90.5	55	9.0	3	0.5	58	9.5
	Carbon	242	132	54.5	7	2.9	103	42.6	110	45.5
	Converse	216	181	83.8	30	13.9	5	2.3	35	16.2
	Crook	102	77	75.5	24	23.5	1	1.0	25	24.5
	Fremont	568	523	92.1	37	6.5	8	1.4	45	7.9
	Goshen	161	143	88.8	11	6.8	7	4.3	18	11.2
	Hot Springs	59	51	86.4	7	11.9	1	1.7	8	13.6
	Johnson	118	104	88.1	14	11.9	0	0.0	14	11.9
	Laramie	1,082	1,015	93.8	39	3.6	28	2.6	67	6.2
	Lincoln	252	235	93.3	14	5.6	3	1.2	17	6.7
	Natrona	841	789	93.8	47	5.6	5	0.6	52	6.2
	Niobrara	37	34	91.9	3	8.1	0	0.0	3	8.1
	Park	314	291	92.7	20	6.4	3	1.0	23	7.3
	Platte	151	138	91.4	13	8.6	0	0.0	13	8.6

	Sheridan	377	343	91	32	8.5	2	0.5	34	9.0
	Sublette	130	109	83.8	21	16.2	0	0.0	21	16.2
	Sweetwater	563	502	89.2	57	10.1	4	0.7	61	10.8
	Teton	204	185	90.7	14	6.9	5	2.5	19	9.3
	Uinta	359	315	87.7	41	11.4	3	0.8	44	12.3
	Washakie	125	109	87.2	12	9.6	4	3.2	16	12.8
	Weston	101	89	88.1	11	10.9	1	1.0	12	11.9
2009/10	**Total**	**7,361**	**6,588**	**89.5**	**566**	**7.7**	**207**	**2.8**	**773**	**10.5**
	Albany	342	298	87.1	13	3.8	31	9.1	44	12.9
	Big Horn	209	166	79.4	43	20.6	0	0.0	43	20.6
	Campbell	640	575	89.8	53	8.3	12	1.9	65	10.2
	Carbon	243	214	88.1	23	9.5	6	2.5	29	11.9
	Converse	216	192	88.9	22	10.2	2	0.9	24	11.1
	Crook	103	80	77.7	22	21.4	1	1.0	23	22.3
	Fremont	575	522	90.8	41	7.1	12	2.1	53	9.2
	Goshen	169	139	82.2	6	3.6	24	14.2	30	17.8
	Hot Springs	68	53	77.9	8	11.8	7	10.3	15	22.1
	Johnson	122	112	91.8	8	6.6	2	1.6	10	8.2
	Laramie	1,098	1,022	93.1	38	3.5	38	3.5	76	6.9
	Lincoln	254	236	92.9	16	6.3	2	0.8	18	7.1
	Natrona	860	810	94.2	46	5.3	4	0.5	50	5.8
	Niobrara	53	35	66	18	34.0	0	0.0	18	34.0
	Park	317	299	94.3	15	4.7	3	0.9	18	5.7
	Platte	147	136	92.5	11	7.5	0	0.0	11	7.5
	Sheridan	396	353	89.1	26	6.6	17	4.3	43	10.9
	Sublette	135	110	81.5	24	17.8	1	0.7	25	18.5
	Sweetwater	593	532	89.7	57	9.6	4	0.7	61	10.3
	Teton	225	185	82.2	13	5.8	27	12.0	40	17.8
	Uinta	363	321	88.4	40	11.0	2	0.6	42	11.6
	Washakie	131	109	83.2	13	9.9	9	6.9	22	16.8
	Weston	102	89	87.3	10	9.8	3	2.9	13	12.7
2010/11	**Total**	**7,345**	**6,562**	**89.3**	**598**	**8.1**	**185**	**2.5**	**783**	**10.7**
	Albany	347	299	86.2	18	5.2	30	8.6	48	13.8
	Big Horn	208	159	76.4	48	23.1	1	0.5	49	23.6
	Campbell	655	578	88.2	57	8.7	20	3.1	77	11.8
	Carbon	240	205	85.4	29	12.1	6	2.5	35	14.6
	Converse	215	194	90.2	18	8.4	3	1.4	21	9.8
	Crook	105	80	76.2	24	22.9	1	1.0	25	23.8
	Fremont	564	516	91.5	39	6.9	9	1.6	48	8.5
	Goshen	171	142	83	16	9.4	13	7.6	29	17.0
	Hot Springs	66	51	77.3	8	12.1	7	10.6	15	22.7
	Johnson	121	115	95	6	5.0	0	0.0	6	5.0
	Laramie	1,087	1,011	93	41	3.8	35	3.2	76	7.0
	Lincoln	244	228	93.4	15	6.1	1	0.4	16	6.6
	Natrona	879	836	95.1	38	4.3	5	0.6	43	4.9
	Niobrara	59	35	59.3	24	40.7	0	0.0	24	40.7
	Park	323	304	94.1	13	4.0	6	1.9	19	5.9
	Platte	143	130	90.9	13	9.1	0	0.0	13	9.1
	Sheridan	371	332	89.5	31	8.4	8	2.2	39	10.5
	Sublette	140	120	85.7	18	12.9	2	1.4	20	14.3

	Sweetwater	589	527	89.5	56	9.5	6	1.0	62	10.5
	Teton	221	183	82.8	18	8.1	20	9.0	38	17.2
	Uinta	362	316	87.3	43	11.9	3	0.8	46	12.7
	Washakie	134	111	82.8	14	10.4	9	6.7	23	17.2
	Weston	101	90	89.1	11	10.9	0	0.0	11	10.9
2011/12	**Total**	**7,378**	**6,527**	**88.5**	**654**	**8.9**	**197**	**2.7**	**851**	**11.5**
	Albany	345	301	87.2	21	6.1	23	6.7	44	12.8
	Big Horn	211	154	73	53	25.1	4	1.9	57	27.0
	Campbell	633	570	90	61	9.6	2	0.3	63	10.0
	Carbon	245	209	85.3	32	13.1	4	1.6	36	14.7
	Converse	223	196	87.9	24	10.8	3	1.3	27	12.1
	Crook	107	80	74.8	26	24.3	1	0.9	27	25.2
	Fremont	585	527	90.1	42	7.2	16	2.7	58	9.9
	Goshen	165	143	86.7	18	10.9	4	2.4	22	13.3
	Hot Springs	59	46	78	11	18.6	2	3.4	13	22.0
	Johnson	125	113	90.4	11	8.8	1	0.8	12	9.6
	Laramie	1,108	1,041	94	35	3.2	32	2.9	67	6.0
	Lincoln	244	227	93	16	6.6	1	0.4	17	7.0
	Natrona	875	835	95.4	34	3.9	6	0.7	40	4.6
	Niobrara	66	38	57.6	28	42.4	0	0.0	28	42.4
	Park	320	297	92.8	18	5.6	5	1.6	23	7.2
	Platte	144	128	88.9	16	11.1	0	0.0	16	11.1
	Sheridan	366	326	89.1	37	10.1	3	0.8	40	10.9
	Sublette	140	115	82.1	24	17.1	1	0.7	25	17.9
	Sweetwater	609	533	87.5	66	10.8	10	1.6	76	12.5
	Teton	211	190	90	14	6.6	7	3.3	21	10.0
	Uinta	365	260	71.2	40	11.0	65	17.8	105	28.8
	Washakie	125	108	86.4	13	10.4	4	3.2	17	13.6
	Weston	107	90	84.1	14	13.1	3	2.8	17	15.9

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